

## Appendix D

# Data Sources and Methodology for Contracting and Capacity Turnback Analysis

This appendix describes how original data sources were edited for use in the analysis presented in Chapter 6, “Contracting Shifts in the Pipeline Transportation Market.” It also presents some further analysis and more detailed information on firm capacity contracts and released capacity than was possible in the chapter. In addition, it describes the various analytical methods used in development of the chapter.

The appendix has four sections.

- The first section describes the editing of the original capacity release and contracted firm capacity data. In some cases the editing required was extensive. The analysis presented in this report would not be easy to derive by simply using the original data sources cited.
- The second section describes the analysis employed to examine shippers’ contracting behavior and identify examples of turnback.
- The third section presents the derivation of the sample of individual shippers whose contracts are analyzed in the chapter. Specific contract-level information is included for the sampled shipper-pipeline combinations.
- The final section presents further details on firm capacity and capacity release in both graphic and tabular form.

## Data Editing

### Capacity Release Data

Prior to the implementation of the Federal Energy Regulatory Commission’s (FERC) Order 636 on November 1, 1993, capacity held under a contract between a shipper and a pipeline company could not be assigned or sold to any other shipper. Under Order 636, shippers have the right to sell all or part of the capacity under a firm transportation

contract for any portion of the term of the contract. This is known as “capacity release.” FERC required each pipeline company to set up an electronic bulletin board (EBB) to post offers to release capacity made by their shippers and to post capacity release awards. In the beginning, individual pipeline companies had created unique formats and programs for their EBBs, which resulted in a burdensome system that prompted the industry to seek standardization. The Gas Industry Standards Board (GISB) was assigned the task of standardizing capacity release and other natural gas industry business practices. In Order 587, issued in July 1996, FERC agreed to the GISB proposal that transaction information should be available on the Internet’s World Wide Web site for each interstate pipeline company.

The capacity release data used in this report were obtained from Pasha Publications, Inc. (PASHA) and the FERC Office of Pipeline Regulation. For the period November 1, 1993, through July 19, 1994 (date of capacity release award), data were obtained from PASHA, who had compiled a database of the information posted on various pipeline companies’ EBBs. For the period July 20, 1994, through approximately May 1997, data were obtained from the FERC Office of Pipeline Regulation (OPR), who in turn had downloaded the data from each pipeline company’s EBB. The FERC data was in electronic data interchange (EDI) format. In those instances where the EDI-downloaded data did not include rate information and PASHA data included the same capacity release award, the rate information was taken from PASHA. If no rate was available for a given award and other awards existed for that day, then the average rate of all the other awards for that award date was used.

Capacity release data from May 1997 through June 1998 were also obtained from the FERC OPR. These data were also downloaded from the Internet but were put in GISB capacity release documentation format (see capacity release implementation guide on <<http://www.gisb.org>>).

The PASHA and EDI data were merged using the calendar date of July 20, 1994. Because there was an overlap of

several months when both the EDI data and the Internet data were obtained and in some cases data existed in one data format and not the other, the EDI and Internet data series were merged using a different scheme. The pipeline company name, offer number, and beginning and ending dates of the award were used as keys to identify unique capacity release awards. This required reformatting of the offer numbers for several of the pipeline companies.

The final file contained 82,456 capacity release award records. In order to perform certain specific analyses for this report, this file was expanded by converting a single award record for a time period into a record for each day the award was effective. This expanded file contained 3,773,075 records. By simple summation of this expanded file for any time period, the amount of released capacity awarded and revenue could be calculated.

Table D1 lists each pipeline company, the earliest and latest dates of capacity release awards recorded in the three data sets, the number of awards, the average length of all awards, and the average volume of all awards. For 46 Internet-based awards, the award date was after the end of the release period, so the transaction posting date was used instead. It is also interesting to note that there are over 100 instances of the capacity release beginning date being several years after the date of the award. In one case, a pipeline company has capacity on three other pipeline companies beginning on December 31, 1999, for 1 day and also beginning on January 1, 2000, for 1 day, apparently as "Year 2000" insurance. Other instances exist of monthly and seasonal volumes being reserved for many years.

In the analysis of capacity release activities in Chapter 6, data were used only for those pipeline companies that had data across the entire 1994-through-1998 period. Thus, the pipeline companies Canyon Creek, Equitrans, Great Lakes, Iroquois, K N Interstate, Kern River, Koch Gateway, Midcoast Interstate, Mobile Bay, Mojave, National Fuel, Questar, Stingray, Viking, and Williston Basin were excluded. For reasons explained in the following section, Northern Natural was also excluded. (In the capacity release material in Chapter 1, data from all 43 pipeline companies shown in Table D1 were used.)

## Index of Customers Data

The FERC Index of Customers filings were the principal source of information for the analysis of firm capacity contracts in Chapter 6. Each pipeline company regulated by FERC that provides firm transportation or storage service is required to file contract and customer information

quarterly. For all firm transportation contracts in effect on the first day of each calendar quarter, the pipeline companies must provide customer name, rate schedule, beginning and ending dates of the contract, rollover days (if any), maximum daily transportation volume, and unit of measure. FERC then posts this information on the FERC Bulletin Board Network as Index of Customers (IOC) information.

The quarterly FERC Index of Customers filings for April 1, 1996, through July 1, 1998, were used as the basis for the analysis. All storage contracts were deleted, leaving files of firm transportation contracts only. The quarterly files were edited to convert all volumes to a heat content (million Btu per day) basis. Additional editing was performed. If a contract end date was before the date of the quarterly filing, the contract was assumed to be operating in its rollover period, and the rollover period was added to the original end date to produce a new end date.

Shipper names were respelled as necessary to have a common spelling for each customer across the 10 quarterly filings. Originally, there were 3,642 unique shipper names across all 10 quarters. This was reduced to 2,228 unique names as a result of the respellings. The respelling affected approximately 23,000 records across the quarters, or 43 percent of all Index of Customers records. The vast majority of these were simple, such as "Corp" versus "Corp.", but in several cases a company's name changed completely when it was purchased by another company (for example, Washington Natural Gas is now Puget Sound Energy, Inc.).

Once common names were arrived at, longitudinal analyses of the data were performed. In some cases, a customer had a contract in quarters  $x$  and  $x+2$  but not  $x+1$ , and these gaps were filled where appropriate by copying the record from the previous quarter's database. This was required for 2 contracts in July 1996, 1 in October 1996, 11 in January 1997, 9 in April 1997, 2 in July 1997, 1 in October 1997, 4 in January 1998, 2 in April 1998, and 47 in July 1998.

In its July 1998 filing, Northern Natural split what had been single, firm transportation contracts into multiple segments (for example, separate rate schedules covered transportation in the production and market areas rather than the single rate schedule used in previous quarters). This greatly increased the number of entries in the filing compared with previous quarters. The April 1998 filing for Northern Natural contained 268 records totaling 4,662,053 million Btu per day of capacity, while the July 1998 filing had 495 records representing a total of 12,832,673 million Btu per day. In several instances, one contract in the April

**Table D1. Capacity Release Activity by Pipeline Company**

Pipeline Company	Date of Capacity Award		November 1993 - June 1998		
	Earliest Award	Latest Award	Number of Awards	Average Length of Award (days)	Average Capacity of Award (MMBtu/d)
Algonquin Gas Transmission Co.	Dec. 1993	Apr. 1998	1,348	534	2,704
ANR Pipeline Co.	Nov. 1993	Apr. 1998	2,617	62	8,290
Canyon Creek Gas Co.	Jan. 1995	Mar. 1996	28	100	14,143
Colorado Interstate Gas Co.	Oct. 1993	Apr. 1998	1,237	41	5,641
CNG Transmission Co.	Oct. 1993	Apr. 1998	4,610	61	6,374
Columbia Gas Transmission Co.	Nov. 1993	May 1998	8,885	53	3,856
Columbia Gulf Transmission Co.	Jun. 1994	May 1998	4,818	55	4,093
East Tennessee Gas Co.	Nov. 1993	Feb. 1998	606	148	2,764
El Paso Natural Gas Co.	Jul. 1993	Apr. 1998	4,992	35	14,428
Equitrans, Inc.	Sep. 1993	Jan. 1996	57	27	11,335
Florida Gas Transmission Co.	Dec. 1993	Apr. 1998	929	83	2,412
Great Lakes Transmission Co.	Dec. 1995	Apr. 1996	120	184	11,967
Iroquois Gas	Nov. 1993	Apr. 1998	22	2,406	6,638
KN Interstate	Oct. 1993	Apr. 1996	877	25	3,856
Kern River	May 1994	Apr. 1998	32	48	15,659
Koch Gateway Pipeline Co.	Dec. 1994	Dec. 1994	3	605	11,013
Midcoast Interstate Transmission, Inc. <sup>1</sup>	Jan. 1996	Apr. 1996	9	252	1,993
Midwestern Gas Transmission Co.	Mar. 1994	Mar. 1998	252	27	13,718
Mississippi River Transmission Co.	Nov. 1993	Apr. 1998	958	91	3,508
Mobile Bay Transmission System	Dec. 1997	Apr. 1998	28	229	3,652
Mojave Pipeline Co.	Jun. 1994	Jan. 1998	72	34	26,785
National Fuel Gas Supply Corp.	Jul. 1994	Apr. 1996	615	28	2,266
Natural Gas Pipeline Co. of America	Dec. 1993	Feb. 1998	2,910	45	11,681
NORAM Gas Transmission	Nov. 1993	May 1998	283	229	1,780
Northern Border Pipeline Co.	Dec. 1993	Apr. 1998	169	395	14,913
Northern Natural Gas Co.	Nov. 1993	Apr. 1998	2,413	53	7,467
Northwest Pipeline Corp.	Nov. 1993	May 1998	2,197	359	6,316
Pacific Gas Transmission Co.	Nov. 1993	Jan. 1998	2,040	200	11,785
Paiute Pipeline Co.	Dec. 1993	Oct. 1997	524	30	571
Panhandle Eastern Pipe Line Co.	Jul. 1993	Apr. 1998	2,158	36	4,981
Questar Pipeline Co.	Sep. 1993	Sep. 1993	1	30	1,000
Southern Natural Gas Co.	Dec. 1993	Mar. 1998	3,368	35	8,164
Stingray Pipeline Co.	Sep. 1995	Aug. 1997	177	63	1,564
Tennessee Gas Pipeline Co.	Oct. 1993	May 1998	7,258	230	4,738
Texas Eastern Transmission Corp.	Jul. 1993	Apr. 1998	5,809	326	8,717
Texas Gas Transmission Corp.	Nov. 1993	Feb. 1998	6,127	67	5,502
Trailblazer Pipeline Co.	Feb. 1994	Nov. 1997	399	98	11,705
Transcontinental Gas Pipe Line Corp.	Nov. 1993	Apr. 1998	8,891	100	4,836
Transwestern Pipeline Co.	Jul. 1993	Apr. 1998	973	44	11,500
Trunkline Gas Co.	Sep. 1993	Apr. 1998	673	47	7,446
Viking Gas Transmission Co.	Apr. 1994	Aug. 1994	7	57	12,990
Williams Natural Gas Co.	Dec. 1993	Apr. 1998	2,931	83	4,800
Williston Basin Interstate Pipeline Co.	Oct. 1997	May 1998	24	657	2,052

<sup>1</sup>Formerly known as Alabama-Tennessee Gas Co.

MMBtu/d = Million Btu per day.

Source: Energy Information Administration, Office of Oil and Gas, derived from: **November 1993-July 1994:** Pasha Publications, Inc.; **July 1994-May 1997:** Federal Energy Regulatory Commission (FERC) Electronic Data Interchange; **May 1997-June 1998:** FERC downloaded Internet data.

filing appeared multiple times in the July filing, with the total term of the contract split into pieces with differing volumes. In those cases, the volume appearing in the earliest time period was used across the entire time period and the extra pieces were deleted. After this editing step, the file contained 301 records totaling 5,323,507 million Btu per day. The large volume in July 1998 remained a concern, however, so Northern Natural was excluded from the analysis. This resulted in sample of 64 pipeline companies for the analysis.

### **Contract Length**

To study the trends in long-term and short-term contracting, the contracts in the Index of Customers were designated as long-term or short-term based on the contract's effective term (the number of days between its start and end date). Long-term contracts are defined as those contracts with terms longer than 366 days. The analysis assumes that shippers do not use contracts with annual (including leap year) or shorter terms to satisfy long-term transportation portfolio planning. The separation of capacity between long-term (more than 366 days) and short-term (366 days or less) is also necessary since it is unlikely that the expiration of short-term contracts will result in a permanent or long-term turnback of a significant amount of capacity.

### **Shipper Type Classification**

Another aspect of preparing the Index of Customers' data for analysis was the assignment of a shipper type to each shipper name. The Index of Customers provides the name of each company that contracted for firm transportation, but it does not provide any other information to identify what segment of the industry the shipper represented. Thus, Energy Information Administration (EIA) staff compared shipper names with lists of companies from other sources to classify each shipper. Five sources were used for comparison: (1) Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"; (2) Benjamin Schlesinger and Associates, Inc., *Directory of Natural Gas Marketing Service Companies*, Eleventh Edition (May 1997) (a proprietary source); (3) Energy Planning, Inc., *Directory of Natural Gas Consumers*, 5th Edition (1996) (a proprietary source); (4) Form EIA-860, "Annual Electric Generator Report"; and (5) Form EIA-759, "Monthly Power Plant Report."

The list of electric utilities from Form EIA-860 included combination electric and gas utilities. Shippers that appeared in this list and that used more than 50 percent of

their 1997 gas deliveries for fuel to generate electricity were classified as electric utilities. Combination companies that used 50 percent or less of their 1997 gas deliveries for fuel to generate electricity were classified as local distribution companies. For example, Baltimore Gas and Electric Company was classified as a local distribution company while Consolidated Edison Company was classified as an electric utility.

The final set of shipper categories is as follows:

1. Electric utilities (including combination electric and natural gas utilities who used more than 50 percent of their 1997 gas deliveries for fuel to generate electricity)
2. Industrial companies (including independent power producers, cogenerators, and commercial firms)
3. Local distribution companies (including intrastate pipeline companies and combination electric and natural gas utilities who used 50 percent or less of their 1997 gas deliveries for fuel to generate electricity)
4. Marketers
5. Pipeline companies
6. Others (including producers, gatherers, processors, storage operators, and all other shippers not classified).

After shipper categories were assigned using the procedure just described (which required some respellings of shipper names), some shippers still were not assigned a category. Internet searches were performed on the shippers with the largest contracted volumes in an attempt to determine the appropriate category, yet some still remained unclassified. Those shippers that could not be categorized using a direct source were subsequently classified as "other." Across all 10 quarters, 2.0 percent of the contracts were not identified as to shipper type, accounting for 0.4 percent of the total contract volume. One-quarter of this classified volume is accounted for by two shippers on Transwestern. Table D2 lists the top 25 shippers by volume in each shipper category according to the July 1998 Index of Customers.

### **Further Editing**

Further editing was done to prepare the data for analysis. All zero-volume contracts were deleted, so that average volume calculations would not be biased. With one exception, pipeline companies that did not have data for all

**Table D2. Top 25 Shippers by Shipper Type and Amount of Firm Transportation Capacity on All Pipeline Companies, July 1, 1998**

Shipper Type / Name	Capacity (million Btu per day)
<b>Electric Utility</b>	
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC	678,892
FLORIDA POWER & LIGHT	630,000
NEW ENGLAND POWER CO	559,445
SIERRA PACIFIC POWER COMPANY	350,010
DELMARVA POWER & LIGHT CO	246,746
CONNECTICUT LIGHT & POWER COMPANY	220,620
PORTLAND GENERAL ELECTRIC COMPANY	196,925
CITY OF LOS ANGELES DEPARTMENT OF WATER & POWER	174,893
VIRGINIA ELECTRIC & POWER CO	161,288
SOUTHERN CALIFORNIA EDISON COMPANY	132,990
FLORIDA POWER CORPORATION	111,036
TALLAHASSEE, CITY OF	78,936
CENTRAL LOUISIANA ELECTRIC COMPANY, INC.	75,000
SAN DIEGO GAS & ELECTRIC COMPANY	62,738
BOSTON EDISON CO	60,300
EMPIRE DISTRICT ELECTRIC COMPANY	58,101
WISCONSIN POWER & LIGHT CO	57,288
KANSAS POWER & LIGHT COMPANY	48,668
ORLANDO UTILITIES COMMISSION	32,423
POWER AUTHORITY OF THE STATE OF NEW YORK	31,765
KANSAS CITY POWER & LIGHT COMPANY	31,455
CITY OF HAMILTON, OHIO	30,000
LAKELAND, CITY OF	28,529
GULF STATES UTILITIES CO.	27,000
TAUNTON MUNICIPAL LIGHTING PLANT	27,000
<b>Industrial</b>	
SITHE/INDEPENDENCE POWER PARTNERS, L.P.	279,382
GENERAL MOTORS CORPORATION	182,990
BETHLEHEM STEEL CORP.	181,909
SELKIRK COGEN PARTNERS, L. P.	154,280
DOSWELL LIMITED PARTNERSHIP	125,000
ALLIED SIGNAL, INC.	117,198
PCS NITROGEN FERTILIZER, L.P.	115,110
U.S. STEEL GROUP	112,040
EAGLE POINT COGENERATION	112,000
ARCHER-DANIELS-MIDLAND CO.	106,050
NATIONAL STEEL CORPORATION - GREAT LAKES STEEL DIV.	100,000
INTERNATIONAL PAPER CO.	95,136
ENTERGY POWER, INC.	90,000
SUN COMPANY, INC. (R&M)	82,423
CANAL ELECTRIC COMPANY	75,000
PCS NITROGEN OHIO, L.P.	70,000
ALUMINUM COMPANY OF AMERICA	69,803
LTV STEEL CORPORATION	63,000
GRANITE CITY STEEL DIVISION OF NATIONAL STEEL CORP.	59,939
PROCTER & GAMBLE PAPER PRODUCTS	59,790
U S GYPSUM CO	59,617
INDECK-OLEAN LIMITED PARTNERSHIP	55,500
INDECK-CORINTH LIMITED PARTNERSHIP	53,700
KN PROCESSING, INC.	50,000
OCEAN STATE POWER	50,000

**Table D2. Top 25 Shippers by Shipper Type and Amount of Firm Transportation Capacity on All Pipeline Companies, July 1, 1998 (Continued)**

Shipper Type / Name	Capacity (million Btu per day)
<b>Local Distribution Company</b>	
PUBLIC SERVICE ELECTRIC & GAS	2,351,539
COLUMBIA GAS OF OHIO, INC.	2,343,647
SOUTHERN CALIFORNIA GAS COMPANY	1,907,450
NATIONAL FUEL GAS DISTRIBUTION CO	1,706,397
EAST OHIO GAS CO	1,673,004
NICOR GAS COMPANY	1,614,411
ARKANSAS LOUISIANA GAS COMPANY	1,239,638
PUBLIC SERVICE COMPANY OF COLORADO	1,184,598
MISSOURI GAS ENERGY	1,181,805
LACLEDE GAS COMPANY	1,155,418
NIAGARA MOHAWK POWER CORP	1,089,510
ATLANTA GAS LIGHT CO.	1,086,395
NORTHERN INDIANA PUBLIC SERVICE COMPANY	1,081,856
PACIFIC GAS & ELECTRIC CO	1,080,850
WASHINGTON GAS LIGHT CO	1,068,151
MICHIGAN CONSOLIDATED GAS CO	941,353
BOSTON GAS COMPANY	905,093
BROOKLYN UNION GAS COMPANY	835,624
ROCHESTER GAS & ELECTRIC CORPORATION	804,949
MOUNTAIN FUEL SUPPLY COMPANY	798,902
PIEDMONT NATURAL GAS COMPANY, INC.	767,392
BALTIMORE GAS & ELECTRIC CO	689,297
WISCONSIN GAS COMPANY	577,800
CINCINNATI GAS & ELECTRIC COMPANY	573,082
UGI UTILITIES INC	573,065
<b>Marketer</b>	
NATURAL GAS CLEARINGHOUSE, INC.	1,694,411
BURLINGTON RESOURCES	1,016,694
ENGAGE ENERGY U.S., L.P.	826,163
KANSAS GAS SERVICE	810,202
MIDCON GAS SERVICES CORP	800,618
DUKE ENERGY TRADING & MARKETING	789,709
PUGET SOUND ENERGY, INC	763,179
NORAM ENERGY SERVICES, INC.	746,245
TEXACO NATURAL GAS INC.	728,688
AMOCO ENERGY TRADING CORP.	673,986
CONSUMERS ENERGY COMPANY	668,231
CHEVRON USA, INC.	629,584
NORTHWEST NATURAL GAS COMPANY	550,814
UNION PACIFIC FUELS, INC.	503,207
ENRON CAPITAL & TRADE RESOURCES	482,941
K N MARKETING	461,984
COLUMBIA ENERGY SERVICES CORPORATION	448,476
WILLIAMS ENERGY SERVICES	423,495
NUI CORP	391,806
TRANSCO ENERGY MARKETING COMPANY	383,892
PROLIANCE ENERGY LLC	354,278
KIMBALL TRADING CO., L.L.C.	341,400
CORAL ENERGY RESOURCES	337,744
EXXON	325,569
COLORADO INTERSTATE GAS CO.	313,730

**Table D2. Top 25 Shippers by Shipper Type and Amount of Firm Transportation Capacity on All Pipeline Companies, July 1, 1998 (Continued)**

Shipper Type / Name	Capacity (million Btu per day)
<b>Other</b>	
PAN-ALBERTA GAS (U.S.) INC.	843,859
KOCH ENERGY TRADING, INC.	312,000
BARRETT RESOURCES CORP.	199,591
MICHCON GATHERING COMPANY	165,000
SHELL OFFSHORE INC	152,488
VASTAR RESOURCES, INC.	120,000
EQUITABLE RESOURCES ENERGY CO	107,770
AERA ENERGY LLC	103,000
AGAVE ENERGY CO.	100,000
CIG RESOURCES COMPANY	98,152
ENRON OIL & GAS COMPANY	95,000
PEMEX GAS Y PETROQUIMICA BASICA	95,000
RENAISSANCE ENERGY (U.S.) INC.	86,121
MURPHY EXPLORATION & PRODUCTION COMPANY	85,120
ENRON INDUSTRIAL NATURAL GAS COMPANY	75,000
SOCO WATTENBERG CORPORATION	74,198
SHELL WESTERN E & P, INC.	70,000
CHEVRON U.S.A. PRODUCTION COMPANY	60,600
AMERICAN CENTRAL GAS COS INC	60,000
OXY USA, INC.	56,000
SHELL DEEPWATER PRODUCTION, INC.	55,000
PENNZOIL EXPLORATION AND PRODUCTION CO.	53,560
ORCHARD GAS, INC.	50,750
CNG PRODUCING CO	47,597
NORCEN EXPLORER, INC.	45,000
<b>Pipeline Company</b>	
TRANSCANADA PIPELINES LTD.	1,531,556
ANR PIPELINE COMPANY	856,366
CNG TRANSMISSION CORP	716,675
TRUNKLINE GAS CO	635,000
NATURAL GAS PIPELINE COMPANY OF AMERICA	517,954
PACIFIC INTERSTATE TRANSMISSION COMPANY	488,267
TEXAS EASTERN TRANSMISSION CORPORATION	438,528
SOUTHERN NATURAL GAS CO.	274,612
TRANSCONTINENTAL GAS PIPE LINE CORP	240,070
SOUTHERN CONNECTICUT GAS CO	234,148
TENNESSEE GAS PIPELINE COMPANY	183,800
FLORIDA GAS TRANSMISSION COMPANY	145,642
COLUMBIA GAS TRANSMISSION CORPORATION	131,682
KOCH GATEWAY PIPELINE CO	106,831
HOPE NATURAL GAS COMPANY	103,809
NORTHERN NATURAL GAS CO.	90,005
NATIONAL FUEL GAS SUPPLY CORP	70,213
IROQUOIS GAS TRANSMISSION SYSTEM	50,000
NATURAL GAS TRANSMISSION SERVICES, INC.	14,000
K N INTERSTATE GAS TRANSMISSION COMPANY	12,413
ALGONQUIN GAS TRANS CO	11,137
GAS TRANSPORT, INC.	9,832
CARNEGIE INTERSTATE PIPELINE COMPANY	9,722
RATON GAS TRANSMISSION COMPANY	8,239
QUESTAR P/L CO.	6,324

Notes: Shippers were selected from data for 64 interstate pipeline companies. "Other" includes producers, gatherers, processors, and storage operators as well as shippers that could not be classified.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filing for July 1, 1998, FERC Bulletin Board (August 14, 1998).

10 quarters were also deleted. KO Transmission Company was kept because it was missing data only for the first quarter and had a steady volume in every quarter thereafter. The final edit was to assign a region code to each pipeline company, using the region where most of the pipeline end-use deliveries were made. The total firm capacity for all pipeline companies across the 10 quarters from April 1996 through July 1998 is listed in Table D3 by region. Table D4 shows the number of firm capacity contracts held on each pipeline company.

## How Capacity Turnback Was Identified

Only long-term (longer than 366 days) firm contracts were considered in the analysis of capacity turnback in Chapter 6. As a preliminary step in determining whether any turnback has occurred on the interstate pipeline system, total long-term firm capacity levels over the eight-quarter period, April 1, 1996 through January 1, 1998, in the Index of Customers were examined at both the regional and the pipeline company level. For pipeline companies that showed consistent declines in capacity, the behavior of shippers was also examined, but at the level of total long-term capacity held, not at the contract level.

While this preliminary examination of the data looked for net declines in capacity as an indicator of turnback, a constant or increasing amount of capacity does not necessarily mean that no turnback has occurred. If shippers turned back capacity, yet the pipeline company was able to remarket that capacity to other shippers, there may be little change in total capacity commitments on the system. Thus, further analysis of shipper behavior and individual contracts between shippers and pipeline companies was also included in Chapter 6 (with detailed results presented in the next section of this appendix).

## Capacity Changes Over 12 Months

A means of identifying significant cases of capacity turnback was to calculate the 12-month changes in long-term firm transportation capacity, that is, the change from April 1, 1996, to April 1, 1997, from July 1, 1996 to July 1, 1997, etc. The first eight quarters of data from the Index of Customers were used to provide four sets of comparisons: April, July, October, and January.

Using these 12-month comparisons helped to mitigate the effects of seasonal demand that some pipeline companies may experience. Comparing the quarters sequentially would probably have produced numerous examples of declines in capacity from the January quarter to the April quarter, which in many cases may just reflect seasonal demand on the part of shippers (the heating season runs from November through March). However, declines in capacity between January of one year and January of the next year would indicate that a pipeline company may be experiencing the turnback of capacity and that the data for that company should be examined further.

At a regional level, the 12-month comparisons showed very little evidence of net declines in capacity. In fact, this measure indicates that long-term firm capacity commitments generally increased during the period examined—the biggest exception being in the Southwest Region (Table D5). The Southwest had the lowest amount of long-term firm capacity on April 1, 1996 of all the regions, and capacity seems to have been reduced throughout the period. The Southwest experienced declines in each of the four 12-month comparisons, the largest being 14 and 16 percent, respectively, in the July and October comparisons. The Northeast and the West also had some declines in capacity according to this measure, but all the declines were 2 percent or less.

The regional results show only the net impact of changes that occurred on individual pipeline systems. So, the 12-month comparisons were also applied to all 64 interstate pipeline companies in this study. Many companies showed increases in long-term firm capacity in each quarterly comparison, while others showed a mixture of increases and declines. Several pipeline companies showed declines in three or more of the 12-month comparisons. The most significant of these, in terms of the change in volume and the number of quarters that showed a decline, occurred on: Algonquin Gas Transmission Company in the Northeast; Koch Gateway Pipeline Company and Noram Gas Transmission Company, both in the Southwest; and Northwest Pipeline Corporation and Pacific Gas Transmission Company, both in the West (Table D6).<sup>1</sup> Taken together, these five companies accounted for 15 percent of the total long-term firm capacity that was effective on April 1, 1996. Koch Gateway and Northwest

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<sup>1</sup>Besides the companies discussed here, two other pipeline companies had declines in each of the four quarters, but the long-term firm capacity on their systems as of April 1, 1996 was less than 500 billion Btu per day. These companies were Canyon Creek Compression Company and Williston Basin Interstate Pipeline Company, both in the Central Region.



**Table D3. Firm Transportation Capacity by Region and Pipeline Company, April 1, 1996 - July 1, 1998**  
(Million Btu per Day)

Region / Pipeline Company	April 1, 1996	July 1, 1996	October 1, 1996	January 1, 1997	April 1, 1997	July 1, 1997	October 1, 1997	January 1, 1998	April 1, 1998	July 1, 1998
<b>Central</b>										
Canyon Creek Compression Co.	225,764	224,291	219,548	215,859	213,013	210,168	205,214	202,263	200,260	200,260
Colorado Interstate Gas Co. <sup>a</sup>	2,096,216	1,697,972	2,132,011	2,161,156	2,167,465	2,216,199	2,378,401	2,474,467	2,472,012	2,441,588
K N Interstate Gas Transmission Co.	612,454	520,595	527,208	463,665	440,867	444,506	735,071	936,065	859,152	741,437
MIGC, Inc.	12,000	12,000	12,000	45,000	45,000	45,000	45,000	90,000	90,000	90,000
Mississippi River Transmission Corp. <sup>a</sup>	1,600,841	1,569,591	1,572,341	1,661,737	1,656,550	1,592,800	1,595,800	1,727,706	1,627,687	1,622,687
Northern Border Pipeline Co. <sup>a</sup>	1,684,194	1,680,015	1,677,974	1,671,840	1,691,019	1,697,170	1,647,301	1,694,494	1,695,686	1,695,686 <sup>b</sup>
Questar Pipeline Co.	1,093,946	1,091,087	1,075,644	1,045,494	1,062,269	1,035,590	1,079,088	1,146,861	1,121,027	1,122,904
Trailblazer Pipeline Co. <sup>a</sup>	284,271	540,351	553,351	555,462	555,462	555,462	605,017	605,017	605,017	605,017
Westgas Interstate Inc	10,572	10,572	13,372	13,372	13,372	13,372	13,372	13,372	13,372	13,372
Williams Natural Gas Co. <sup>a</sup>	2,697,941	2,698,791	2,737,300	2,870,893	2,911,948	2,900,039	2,787,988	2,861,286	2,762,068	2,845,768
Williston Basin Interstate Pipeline Co.	440,217	440,217	439,960	507,233	467,717	423,126	436,001	464,913	442,768	438,185
Wyoming Interstate Co., Ltd.	500,000	515,000	542,488	542,484	542,494	542,494	753,779	784,679	784,679	784,679
<b>Total Central</b>	<b>11,258,416</b>	<b>11,000,482</b>	<b>11,503,197</b>	<b>11,754,195</b>	<b>11,767,176</b>	<b>11,675,926</b>	<b>12,282,032</b>	<b>13,001,123</b>	<b>12,673,728</b>	<b>12,601,583</b>
Release Sample Central	8,363,463	8,186,720	8,672,977	8,921,088	8,982,444	8,961,670	9,014,507	9,362,970	9,162,470	9,210,746
Release Sample as a Percent of Total	74%	74%	75%	76%	76%	77%	73%	72%	72%	73%
<b>Midwest</b>										
ANR Pipeline Co. <sup>a</sup>	4,295,471	4,907,838	5,118,103	7,442,094	4,976,316	5,043,139	5,232,978	7,423,021	5,149,463	5,157,798
Crossroads Pipeline Co.	91,769	61,019	91,064	127,000	131,130	132,100	132,000	148,466	153,466	153,466
Great Lakes Gas Transmission, L.P.	3,895,797	5,180,176	5,319,225	4,903,204	4,575,852	4,369,826	4,340,100	4,249,214	3,509,519	3,884,669
Michigan Gas Storage Co.	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Midwestern Gas Transmission Co. <sup>a</sup>	762,090	742,347	724,540	909,446	742,897	744,397	754,055	899,176	755,255	745,597
Natural Gas Pipeline Co. of America <sup>a</sup>	5,821,173	5,756,254	5,756,254	6,241,854	6,109,313	6,061,653	5,975,549	5,789,238	5,657,238	5,450,813
Panhandle Eastern Pipe Line Co. <sup>a</sup>	2,540,173	2,495,729	2,603,294	3,240,222	2,692,940	2,529,538	2,662,717	3,226,964	2,725,278	2,580,112
Trunkline Gas Co. <sup>a</sup>	2,059,353	2,033,043	2,050,362	2,172,524	2,020,556	1,968,610	2,192,426	2,513,750	2,052,074	2,027,489
Viking Gas Transmission Co.	472,401	462,336	478,378	535,006	569,508	574,508	562,858	596,256	481,858	500,336
<b>Total Midwest</b>	<b>20,238,227</b>	<b>21,938,742</b>	<b>22,441,220</b>	<b>25,871,350</b>	<b>22,118,512</b>	<b>21,723,771</b>	<b>22,152,683</b>	<b>25,146,085</b>	<b>20,784,151</b>	<b>20,800,280</b>
Release Sample Midwest	15,478,260	15,935,211	16,252,553	20,006,140	16,542,022	16,347,337	16,817,725	19,852,149	16,339,308	15,961,809
Release Sample as a Percent of Total	76%	73%	72%	77%	75%	75%	76%	79%	79%	77%
<b>Northeast</b>										
Algonquin Gas Transmission Co. <sup>a</sup>	1,812,309	1,810,493	1,810,439	1,877,351	1,880,091	1,962,591	1,962,591	2,001,394	1,981,656	1,981,655
Carnegie Interstate Pipeline Co.	85,000	85,000	85,000	85,000	88,300	88,300	88,300	38,000	38,000	38,000
CNG Transmission Corp. <sup>a</sup>	4,750,112	4,755,669	4,753,072	4,818,972	4,779,172	4,748,926	4,748,926	4,865,578	4,859,909	4,849,918
Columbia Gas Transmission Corp. <sup>a</sup>	4,847,885	4,942,941	6,774,126	7,170,793	7,027,913	4,904,448	6,837,765	7,654,259	5,472,517	5,271,781
Equitrans, L.P.	358,798	366,798	372,914	738,879	383,319	381,344	387,094	738,510	373,169	374,771
Granite State Gas Transmission, Inc.	177,367	177,367	177,367	177,367	177,367	177,367	177,367	177,367	177,367	177,367
Iroquois Gas Transmission System, L.P.	827,470	878,045	852,556	971,756	1,001,350	1,001,350	972,182	935,067	966,997	1,115,482
Kentucky West Virginia Gas Co.	138,442	138,442	138,442	138,442	138,442	138,442	138,442	103,235	71,414	103,442
National Fuel Gas Supply Corp.	1,853,613	1,769,181	1,792,405	1,880,051	1,812,476	1,814,476	1,814,476	1,840,432	1,874,323	1,888,276
NORA Transmission Co.	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000
Tennessee Gas Pipeline Co. <sup>a</sup>	5,655,492	5,348,525	5,247,581	5,372,776	5,359,628	5,325,983	5,243,812	5,424,504	5,393,603	5,242,068
Texas Eastern Transmission Corp. <sup>a</sup>	4,098,907	4,499,641	4,502,947	4,743,049	4,607,968	4,598,686	4,598,936	4,856,062	4,794,486	4,793,156
Transcontinental Gas Pipe Line Corp. <sup>a</sup>	5,518,592	5,658,409	5,854,482	5,912,461	5,830,988	5,830,988	5,830,988	6,022,325	6,022,327	6,117,602
<b>Total Northeast</b>	<b>30,158,987</b>	<b>30,465,511</b>	<b>32,396,331</b>	<b>33,921,897</b>	<b>33,122,014</b>	<b>31,007,901</b>	<b>32,835,879</b>	<b>34,691,733</b>	<b>32,060,768</b>	<b>31,988,518</b>
Release Sample Northeast	26,683,297	27,015,678	28,942,647	29,895,402	29,485,760	27,371,622	29,223,018	30,824,122	28,524,498	28,256,180
Release Sample as a Percent of Total	88%	89%	89%	88%	89%	88%	89%	89%	89%	88%
<b>Southeast</b>										
Chandeleur Pipe Line Co.	280,000	280,000	280,000	280,000	280,000	280,000	280,000	280,000	280,000	280,000
Columbia Gulf Transmission Co. <sup>a</sup>	3,345,481	3,378,889	3,298,911	3,672,394	3,297,278	3,366,545	3,309,980	3,581,090	3,265,529	3,197,179
East Tennessee Natural Gas Co. <sup>a</sup>	598,106	602,706	489,273	640,667	639,911	526,316	526,316	675,601	645,264	645,264
Florida Gas Transmission Co. <sup>a</sup>	1,532,921	1,529,790	1,530,335	1,555,495	1,543,451	1,548,358	1,505,867	1,568,445	1,541,451	1,533,594
KO Transmission Co.	0	221,000	221,000	221,000	221,000	221,000	221,000	221,000	221,000	221,000
Midcoast Interstate Transmission Inc. (aka Ala-Tenn)	132,502	133,774	132,502	132,502	132,502	132,502	132,502	157,844	157,844	157,844
Mobile Bay Pipeline Co.	27,885	27,885	30,085	27,885	27,885	27,885	27,885	27,885	27,885	27,885
South Georgia Natural Gas Co.	114,341	117,775	121,246	121,246	121,246	128,456	122,276	120,834	122,276	122,276
Southern Natural Gas Co. <sup>a</sup>	2,557,874	2,664,132	2,376,091	2,355,491	2,349,826	2,395,746	2,393,950	2,433,292	2,433,292	2,433,343
Texas Gas Transmission Corp. <sup>a</sup>	1,042,048	1,050,249	1,077,658	1,317,318	1,130,581	1,136,381	1,136,381	1,428,009	1,215,903	1,229,907
<b>Total Southeast</b>	<b>9,631,158</b>	<b>10,006,200</b>	<b>9,557,101</b>	<b>10,323,998</b>	<b>9,743,680</b>	<b>9,763,189</b>	<b>9,656,157</b>	<b>10,494,000</b>	<b>9,910,444</b>	<b>9,848,292</b>
Release Sample Southeast	9,076,430	9,225,766	8,772,268	9,541,365	8,961,047	8,973,346	8,872,494	9,686,437	9,101,439	9,039,287
Release Sample as a Percent of Total	94%	92%	92%	92%	92%	92%	92%	92%	92%	92%

**Table D3. Firm Transportation Capacity by Region and Pipeline Company, April 1, 1996 - July 1, 1998**  
**(Continued)**  
(Million Btu per Day)

Region / Pipeline Company	April 1, 1996	July 1, 1996	October 1, 1996	January 1, 1997	April 1, 1997	July 1, 1997	October 1, 1997	January 1, 1998	April 1, 1998	July 1, 1998
<b>Southwest</b>										
Black Marlin Pipeline Co.	250,383	238,588	236,841	239,500	273,000	254,678	257,500	247,750	114,806	83,288
High Island Offshore System	215,460	215,460	215,460	215,460	215,460	215,460	215,460	215,460	215,460	21,280
Koch Gateway Pipeline Co.	2,370,751	2,802,208	2,869,350	2,958,159	2,761,641	2,142,847	2,252,362	2,913,579	2,399,711	2,261,610
Mid Louisiana Gas Co.	120,655	91,489	120,479	306,936	121,187	95,415	134,353	235,047	146,476	127,563
Noram Gas Transmission Co. <sup>a</sup>	2,729,150	2,603,982	2,369,066	2,699,430	2,706,241	2,730,790	2,644,103	2,561,322	2,498,360	2,632,318
Oktex Pipeline Co.	33,600	33,600	33,600	33,600	33,600	33,600	33,600	33,600	33,600	33,600
Ozark Gas Transmission System	124,333	133,198	135,141	114,353	64,808	55,433	55,455	143,261	50,698	38,249
Sabine Pipe Line Co.	185,000	185,000	185,000	185,000	185,000	185,000	185,000	215,000	195,000	215,000
Sea Robin Pipeline Co.	159,275	157,608	157,608	144,218	144,218	70,058	124,648	321,981	315,565	411,829
Stingray Pipeline Co.	167,181	187,181	187,181	265,931	192,259	192,259	197,259	154,043	154,043	154,043
<b>Total Southwest</b>	<b>6,355,788</b>	<b>6,648,314</b>	<b>6,509,726</b>	<b>7,162,587</b>	<b>6,697,414</b>	<b>5,975,540</b>	<b>6,099,740</b>	<b>7,041,043</b>	<b>6,123,719</b>	<b>5,978,780</b>
Release Sample Southwest	2,729,150	2,603,982	2,369,066	2,699,430	2,706,241	2,730,790	2,644,103	2,561,322	2,498,360	2,632,318
Release Sample as a Percent of Total	43%	39%	36%	38%	40%	46%	43%	36%	41%	44%
<b>West</b>										
El Paso Natural Gas Co. <sup>a</sup>	3,978,504	4,133,498	4,387,216	4,252,412	4,747,618	4,352,880	4,402,341	4,583,904	4,603,819	4,738,219
Kern River Gas Transmission Co.	730,000	751,900	751,900	726,150	751,900	751,900	751,900	793,306	782,800	762,200
Mojave Pipeline Co.	392,600	395,500	395,500	395,500	395,500	395,500	395,500	395,500	395,500	392,600
Northwest Pipeline Corp. <sup>a</sup>	3,533,131	3,590,848	3,842,248	3,653,740	3,300,087	3,293,221	3,304,681	3,524,791	3,324,971	3,342,393
Pacific Gas Transmission Co. <sup>a</sup>	2,847,102	2,827,102	2,827,102	2,783,205	2,728,227	2,928,714	2,868,710	2,870,839	2,970,320	2,956,278
Pacific Interstate Offshore Co.	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000
Paiute Pipeline Co. <sup>a</sup>	138,780	138,780	138,780	229,584	138,780	138,780	138,780	229,807	138,780	75,075
Riverside Pipeline Co., L.P.	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000
Transwestern Pipeline Co. <sup>a</sup>	2,536,948	2,546,444	3,155,475	2,529,600	2,187,063	2,182,660	2,178,710	2,340,930	2,413,745	2,724,795
Tuscarora Gas Transmission Co.	106,250	106,250	106,250	107,710	117,210	168,010	168,110	168,210	168,210	169,760
<b>Total West</b>	<b>14,428,315</b>	<b>14,655,322</b>	<b>15,769,471</b>	<b>14,842,901</b>	<b>14,531,385</b>	<b>14,376,665</b>	<b>14,373,732</b>	<b>15,072,287</b>	<b>14,963,145</b>	<b>15,326,320</b>
Release Sample West	13,034,465	13,236,672	14,350,821	13,448,541	13,101,775	12,896,255	12,893,222	13,550,271	13,451,635	13,836,760
Release Sample as a Percent of Total	90%	90%	91%	91%	90%	90%	90%	90%	90%	90%
<b>Total United States</b>	<b>92,070,891</b>	<b>94,714,571</b>	<b>98,177,046</b>	<b>103,876,928</b>	<b>97,980,181</b>	<b>94,522,992</b>	<b>97,400,223</b>	<b>105,446,271</b>	<b>96,515,955</b>	<b>96,543,773</b>
<b>Release Sample United States</b>	<b>75,365,065</b>	<b>76,204,029</b>	<b>79,360,332</b>	<b>84,511,966</b>	<b>79,779,289</b>	<b>77,281,020</b>	<b>79,465,069</b>	<b>85,837,271</b>	<b>79,077,710</b>	<b>78,937,100</b>
<b>Release Sample as a Percent of Total</b>	<b>82%</b>	<b>80%</b>	<b>81%</b>	<b>81%</b>	<b>81%</b>	<b>82%</b>	<b>82%</b>	<b>81%</b>	<b>82%</b>	<b>82%</b>
<b>Pipeline Companies Excluded from Sample</b>										
Caprock Pipeline Co.	-	-	-	-	-	-	300,000	300,000	300,000	300,000
Cove Point LNG	-	-	-	-	-	-	-	-	-	-
Discovery Gas	-	-	-	-	-	-	-	-	179,452	179,452
Eastern Shore Natural Gas Co.	-	-	-	-	-	-	-	-	69,112	59,112
Garden Banks Gas Co.	-	-	-	-	-	304,000	346,080	485,130	485,130	488,220
Natilus Pipeline Co.	-	-	-	-	-	-	-	185,367	265,696	276,769
Northern Natural Gas Co.	4,813,245	5,020,287	5,267,012	6,671,617	4,776,740	4,974,657	6,404,875	6,765,573	4,662,053	5,323,507 <sup>c</sup>
Nova Gas Transmission Ltd.	-	-	-	-	-	-	-	-	-	-
Overthrust Pipeline Co.	-	-	-	91,183,584	84,556,030	82,559,678	86,516,025	93,573,342	85,039,154	80,240,654
PG&E Gas Transmission	-	-	-	-	-	-	-	-	-	-
Shell Gas Pipeline	-	-	-	5,150	5,150	5,150	92,700	97,850	149,350	149,350
Transcolorado	-	-	-	90,000	92,139	90,000	90,000	90,000	90,000	133,000
U-T Offshore System	-	-	-	-	-	-	-	-	-	-
Venice Gathering	-	-	-	-	-	-	-	591,530	601,714	631,260
Westcoast Energy Inc.	-	-	-	-	-	-	-	-	-	-
Western Gas Interstate	-	-	-	-	-	31,250	32,050	31,250	31,250	-

<sup>a</sup>Only these companies were used in the analysis of capacity release data.

<sup>b</sup>Northern Border April 1, 1998 data used as an estimate for July 1, 1998.

<sup>c</sup>In the July 1, 1998 filing, Northern Natural segmented its capacity. Thus, the total capacity should not be compared to that of other quarters.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filings for April 1, 1996 through July 1, 1998, FERC Bulletin Board (August 14, 1998).

**Table D4. Number of Firm Transportation Contracts by Region and Pipeline Company,  
April 1, 1996 - July 1, 1998**

Region / Pipeline Company	April 1, 1996	July 1, 1996	October 1, 1996	January 1, 1997	April 1, 1997	July 1, 1997	October 1, 1997	January 1, 1998	April 1, 1998	July 1, 1998
<b>Central</b>										
Canyon Creek Compression Co.	6	5	5	5	5	5	5	5	5	5
Colorado Interstate Gas Co.	84	91	107	112	112	120	128	132	137	142
K N Interstate Gas Transmission Co.	51	49	55	42	40	41	42	39	38	35
MIGC, Inc.	1	1	1	2	2	2	2	3	3	3
Mississippi River Transmission Corp. <sup>a</sup>	106	109	107	109	110	106	110	109	105	104
Northern Border Pipeline Co. <sup>a</sup>	40	40	40	40	41	41	40	42	43	432 <sup>b</sup>
Questar Pipeline Co.	25	24	23	25	24	24	27	33	30	30
Trailblazer Pipeline Co. <sup>a</sup>	18	23	23	27	30	30	25	25	25	25
Westgas Interstate Inc	4	4	4	4	4	4	4	4	4	4
Williams Natural Gas Co. <sup>a</sup>	181	184	194	201	219	216	221	242	227	243
Williston Basin Interstate Pipeline Co.	17	17	16	28	21	12	16	23	14	14
Wyoming Interstate Co, Ltd.	9	9	9	30	11	11	20	23	23	23
<b>Total Central</b>	<b>542</b>	<b>556</b>	<b>584</b>	<b>625</b>	<b>619</b>	<b>612</b>	<b>640</b>	<b>680</b>	<b>654</b>	<b>1,060</b>
Release Sample Central	429	447	471	489	512	513	524	550	537	946
Release Sample as a Percent of Total	79%	80%	81%	78%	83%	84%	82%	81%	82%	89%
<b>Midwest</b>										
ANR Pipeline Co. <sup>a</sup>	196	211	230	284	233	255	259	317	258	266
Crossroads Pipeline Co.	6	5	6	5	7	7	7	8	8	8
Great Lakes Gas Transmission, L.P.	68	74	77	86	86	74	83	69	58	66
Michigan Gas Storage Co.	2	2	2	2	2	2	2	2	2	2
Midwestern Gas Transmission Co. <sup>a</sup>	19	20	19	32	18	19	20	26	20	19
Natural Gas Pipeline Co. of America <sup>a</sup>	214	210	210	210	208	211	211	230	219	212
Panhandle Eastern Pipe Line Co. <sup>a</sup>	203	202	211	225	219	212	216	226	216	207
Trunkline Gas Co. <sup>a</sup>	114	109	114	120	115	111	114	119	104	102
Viking Gas Transmission Co.	34	37	35	45	46	47	41	50	39	42
<b>Total Midwest</b>	<b>856</b>	<b>870</b>	<b>904</b>	<b>1,009</b>	<b>934</b>	<b>938</b>	<b>953</b>	<b>1,047</b>	<b>924</b>	<b>924</b>
Release Sample Midwest	746	752	784	871	793	808	820	918	817	806
Release Sample as a Percent of Total	87%	86%	87%	86%	85%	86%	86%	88%	88%	87%
<b>Northeast</b>										
Algonquin Gas Transmission Co. <sup>a</sup>	144	143	143	152	147	148	148	135	126	126
Carnegie Interstate Pipeline Co.	5	5	5	5	6	6	6	3	3	3
CNG Transmission Corp. <sup>a</sup>	113	117	121	127	125	123	123	134	131	130
Columbia Gas Transmission Corp. <sup>a</sup>	212	218	211	263	217	209	205	301	275	278
Equitrans, L.P.	25	26	29	30	26	28	29	33	27	28
Granite State Gas Transmission, inc.	6	6	6	6	6	6	6	6	6	6
Iroquois Gas Transmission System, L.P.	36	37	34	43	44	44	44	41	43	49
Kentucky West Virginia Gas Co.	15	15	15	15	15	15	15	16	15	14
National Fuel Gas Supply Corp.	51	52	54	77	58	60	60	62	68	70
NORA Transmission Co.	1	1	1	1	1	1	1	1	1	1
Tennessee Gas Pipeline Co. <sup>a</sup>	483	452	441	450	448	448	450	460	456	455
Texas Eastern Transmission Corp. <sup>a</sup>	321	324	325	347	339	341	342	354	350	347
Transcontinental Gas Pipe Line Corp. <sup>a</sup>	324	323	323	324	324	324	324	347	348	350
<b>Total Northeast</b>	<b>1,736</b>	<b>1,719</b>	<b>1,708</b>	<b>1,840</b>	<b>1,756</b>	<b>1,753</b>	<b>1,753</b>	<b>1,893</b>	<b>1,849</b>	<b>1,857</b>
Release Sample Northeast	1,597	1,577	1,564	1,663	1,600	1,593	1,592	1,731	1,686	1,686
Release Sample as a Percent of Total	92%	92%	92%	90%	91%	91%	91%	91%	91%	91%
<b>Southeast</b>										
Chandeleur Pipe Line Co.	4	4	4	4	4	4	4	6	6	6
Columbia Gulf Transmission Co. <sup>a</sup>	136	134	133	135	126	129	128	134	133	131
East Tennessee Natural Gas Co. <sup>a</sup>	79	79	82	94	94	93	93	109	99	99
Florida Gas Transmission Co. <sup>a</sup>	89	88	87	90	90	90	90	103	110	105
KO Transmission Co.	89	2	2	2	2	2	2	2	2	2
Midcoast Interstate Transmission Inc. (aka Ala-Tenn)	31	33	32	32	32	32	32	42	42	42
Mobile Bay Pipeline Co.	1	1	1	1	1	1	1	1	1	1
South Georgia Natural Gas Co.	48	48	49	49	49	50	50	50	50	50
Southern Natural Gas Co. <sup>a</sup>	335	342	334	350	348	348	346	354	354	353
Texas Gas Transmission Corp. <sup>a</sup>	78	81	88	98	93	94	94	108	94	97
<b>Total Southeast</b>	<b>890</b>	<b>812</b>	<b>812</b>	<b>855</b>	<b>839</b>	<b>843</b>	<b>840</b>	<b>909</b>	<b>891</b>	<b>886</b>
Release Sample Southeast	717	724	724	767	751	754	751	808	790	785
Release Sample as a Percent of Total	81%	89%	89%	90%	90%	89%	89%	89%	89%	89%

**Table D4. Number of Firm Transportation Contracts by Region and Pipeline Company, April 1, 1996 - July 1, 1998 (Continued)**

Region / Pipeline Company	April 1, 1996	July 1, 1996	October 1, 1996	January 1, 1997	April 1, 1997	July 1, 1997	October 1, 1997	January 1, 1998	April 1, 1998	July 1, 1998
<b>Southwest</b>										
Black Marlin Pipeline Co.	4	4	4	5	5	5	5	4	4	2
High Island Offshore System	2	2	2	2	2	2	2	2	2	1
Koch Gateway Pipeline Co.	184	191	189	195	187	188	201	210	201	205
Mid Louisiana Gas Co.	35	35	60	60	60	61	61	62	62	61
Noram Gas Transmission Co. <sup>a</sup>	247	231	230	245	256	253	253	259	234	241
Oktex Pipeline Co.	2	2	2	2	2	2	2	2	2	2
Ozark Gas Transmission System	7	7	7	7	5	5	5	6	4	4
Sabine Pipe Line Co.	4	5	5	6	6	6	6	7	6	7
Sea Robin Pipeline Co.	8	7	7	7	7	6	9	8	9	16
Stingray Pipeline Co.	6	6	6	9	9	9	10	9	9	9
<b>Total Southwest</b>	<b>499</b>	<b>490</b>	<b>512</b>	<b>538</b>	<b>539</b>	<b>537</b>	<b>554</b>	<b>569</b>	<b>533</b>	<b>548</b>
Release Sample Southwest	247	231	230	245	256	253	253	259	234	241
Release Sample as a Percent of Total	49%	47%	45%	46%	47%	47%	46%	46%	44%	44%
<b>West</b>										
El Paso Natural Gas Co. <sup>a</sup>	36	44	49	47	150	45	48	49	48	56
Kern River Gas Transmission Co.	17	18	16	15	16	16	16	21	21	17
Mojave Pipeline Co.	7	8	8	8	8	8	8	8	8	8
Northwest Pipeline Corp. <sup>a</sup>	130	135	140	141	131	133	136	134	143	149
Pacific Gas Transmission Co. <sup>a</sup>	60	59	59	69	60	89	76	88	84	84
Pacific Interstate Offshore Co.	1	1	1	1	1	1	1	1	1	1
Paiute Pipeline Co.	13	13	13	13	13	13	13	13	13	9
Riverside Pipeline Co., L.P.	3	3	3	3	3	3	3	3	3	3
Transwestern Pipeline Co. <sup>a</sup>	94	92	106	92	86	83	84	87	92	104
Tuscarora Gas Transmission Co.	7	7	7	10	10	12	13	14	12	13
<b>Total West</b>	<b>368</b>	<b>380</b>	<b>402</b>	<b>399</b>	<b>478</b>	<b>403</b>	<b>398</b>	<b>418</b>	<b>425</b>	<b>444</b>
Release Sample West	333	343	367	362	440	363	357	371	380	402
Release Sample as a Percent of Total	90%	90%	91%	91%	92%	90%	90%	89%	89%	91%
<b>Total United States</b>	<b>4,891</b>	<b>4,827</b>	<b>4,922</b>	<b>5,266</b>	<b>5,165</b>	<b>5,086</b>	<b>5,138</b>	<b>5,516</b>	<b>5,276</b>	<b>5,719</b>
<b>Release Sample United States</b>	<b>4,069</b>	<b>4,074</b>	<b>4,140</b>	<b>4,397</b>	<b>4,352</b>	<b>4,284</b>	<b>4,297</b>	<b>4,637</b>	<b>4,444</b>	<b>4,866</b>
<b>Release Sample as a Percent of Total</b>	<b>83%</b>	<b>84%</b>	<b>84%</b>	<b>83%</b>	<b>84%</b>	<b>84%</b>	<b>84%</b>	<b>84%</b>	<b>84%</b>	<b>85%</b>
<b>Pipeline Companies Excluded from Sample</b>										
Caprock Pipeline Co.	-	-	-	-	-	-	1	1	1	1
Cove Point LNG	-	-	-	-	-	-	-	-	-	-
Discovery Gas	-	-	-	-	-	-	-	-	4	4
Eastern Shore Natural Gas Co.	-	-	-	-	-	-	-	-	36	35
Garden Banks Gas Co.	-	-	-	-	-	2	2	2	2	3
Natilus Pipeline Co.	-	-	-	-	-	-	-	3	3	3
Northern Natural Gas Co.	239	258	284	304	248	264	279	311	268	301 <sup>c</sup>
Nova Gas Transmission Ltd.	-	-	-	-	-	-	-	-	-	-
Overthrust Pipeline Co.	-	-	-	-	-	-	-	-	-	-
PG&E Gas Transmission	-	-	-	-	-	-	-	-	-	-
Shell Gas Pipeline	-	-	-	1	1	1	5	6	7	7
Transcolorado	-	-	-	2	3	2	2	2	2	4
U-T Offshore System	-	-	-	-	-	-	-	-	-	-
Venice Gathering	-	-	-	-	-	-	-	12	12	12
Westcoast Energy Inc.	-	-	-	-	-	-	-	-	-	-
Western Gas Interstate	-	-	-	-	-	3	3	3	3	-

<sup>a</sup>Only these companies were used in the analysis of capacity release data.

<sup>b</sup>Northern Border April 1, 1998 data used as an estimate for July 1, 1998.

<sup>c</sup>In the July 1, 1998 filing, Northern Natural segmented its capacity. Thus, the number of contracts should not be compared to that of other quarters.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filings for April 1, 1996 through July 1, 1998, FERC Bulletin Board (August 14, 1998).

**Table D5. Long-Term Firm Capacity on April 1, 1996, and 12-Month Changes by Region**  
(Billion Btu per Day)

Region	Long-Term Firm Capacity on 4/1/96	12-Month Change in Capacity							
		4/1/96 - 4/1/97		7/1/96 - 7/1/97		10/96 - 10/97		1/1/97 - 1/1/98	
		Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Central	9,493	642	7	954	10	675	6	1,723	17
Midwest	17,426	1,528	9	605	3	849	5	222	1
Northeast	28,738	2,845	10	362	1	-515	-2	644	2
Southeast	8,854	312	4	264	3	139	2	435	5
Southwest	5,181	-142	-3	-718	-14	-869	-16	-97	-2
West	13,223	-90	-1	-31	0	-140	-1	441	3
<b>Total</b>	<b>82,915</b>	<b>5,096</b>	<b>6</b>	<b>1,436</b>	<b>2</b>	<b>139</b>	<b>0</b>	<b>3,368</b>	<b>4</b>

Notes: Long-term contracts are longer than 366 days. Data are for 64 interstate pipeline companies. Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filings for April 1, 1996 through January 1, 1998, FERC Bulletin Board (August 14, 1998).

**Table D6. Long-Term Firm Capacity on April 1, 1996, and Significant 12-Month Changes by Pipeline Company**  
(Billion Btu per Day)

Pipeline Company	Region	Long-Term Firm Capacity on 4/1/96		12-Month Change in Capacity							
				4/1/96 - 4/1/97		7/1/96 - 7/1/97		10/96 - 10/97		1/1/97 - 1/1/98	
		Amount	Percent of Region	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Algonquin	Northeast	1,738	6	-164	-9	-82	-5	-111	-6	185	12
Koch Gateway	Southwest	2,361	46	-78	-3	-672	-29	-674	-28	-79	-3
Noram Gas	Southwest	2,064	40	-83	-4	-87	-4	-63	-3	96	5
Northwest	West	3,382	26	-426	-13	-387	-12	-161	-5	-129	-4
Pacific Gas	West	2,847	22	-129	-5	-72	-3	-72	-3	37	1

Note: Long-term contracts are longer than 366 days.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filings for April 1, 1996 through January 1, 1998, FERC Bulletin Board (August 14, 1998).

had the largest declines in capacity, so the shippers on these systems were examined for evidence of turnback.

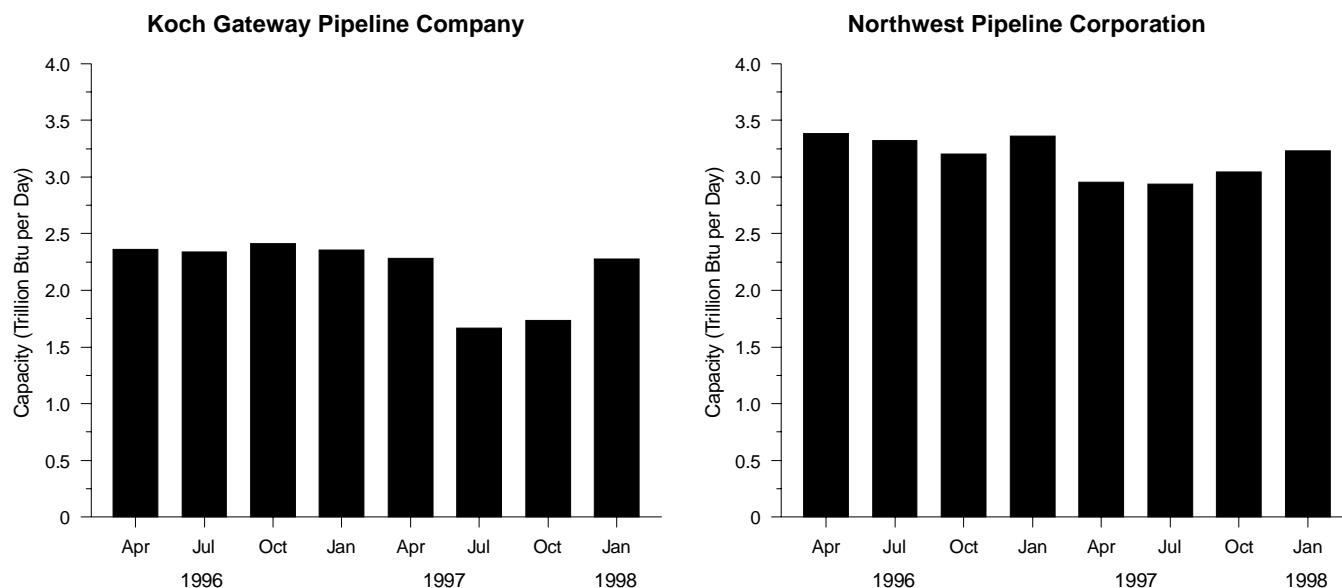
### ***Koch Gateway Pipeline Company***

Koch Gateway had the largest 12-month declines in capacity held on its system, in both absolute and percentage terms, of any pipeline company in the study. The long-term firm capacity on Koch ranged from 2,300 to 2,400 billion Btu per day in most quarters. But it fell to about 1,700 billion Btu per day in the July 1997 and October 1997 quarters, causing the large declines seen in the 12-month comparisons (Figure D1). These declines on Koch accounted for the majority of the declines seen in the

Southwest Region as a whole. Koch accounted for 46 percent of the long-term firm capacity held in the Southwest Region on April 1, 1996.

Koch provided long-term firm transportation capacity to 130 different shippers during the eight-quarter period, however, most of the decline in capacity seen in the July and October comparisons was caused by four shippers: an intrastate pipeline company and three local distribution companies (LDCs). The largest decline came from the intrastate pipeline company, Entex. Entex had fairly steady capacity levels of roughly 550 billion Btu per day during the first five quarters, but capacity was significantly lower in the July 1997 and October 1997 quarters. This resulted

**Figure D1. Long-Term Firm Transportation Capacity on Two Pipeline Companies at the Beginning of Each Quarter, April 1, 1996 - July 1, 1998**



Note: Long-term contracts are longer than 366 days.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filings for April 1, 1996 through January 1, 1998, FERC Bulletin Board (August 14, 1998).

in declines of 234 and 212 billion Btu per day, respectively, in the July and October comparisons. However, in the January 1998 quarter, Entex increased its long-term capacity on Koch back to the levels held previously.

One LDC, New Orleans Public Service, held 100 billion Btu per day of long-term firm capacity on Koch for the first three quarters, but then turned it all back, having zero long-term capacity on Koch in the remaining quarters of the period. Thus, New Orleans Public Service turned back capacity on Koch and contributed 100 billion Btu per day in capacity declines in the April, July, and October comparisons.

The two other LDCs had a pattern similar to that of Entex—their capacity dropped in the July 1997 and October 1997 quarters, but increased to earlier levels in the January 1998 quarter. Louisiana Gas Service and Mississippi Valley Gas contributed 106 and 81 billion Btu per day, respectively, to the decline in capacity shown in the July comparisons and 82 and 62 billion Btu per day, respectively, in the October comparisons.

Of these four shippers, New Orleans Public Service was clearly a case of turnback on Koch. The other three shippers may have also been examples of turnback if the drops in

capacity were the result of contracts ending prior to July 1, 1997. Together, these four shippers had declines in capacity totaling 521 and 456 billion Btu per day in the 12-month comparisons for July and October, respectively. This is equivalent to 78 and 68 percent, respectively, of the net decline on Koch's system for those quarters.

### ***Northwest Pipeline Corporation***

Northwest Pipeline is second only to Koch Gateway in terms of the amount and percentage declines in capacity shown in the 12-month comparisons, indicating the strong possibility that turnback has occurred on the Northwest system. Northwest Pipeline had 3,382 billion Btu per day of long-term firm capacity on April 1, 1996, accounting for 26 percent of the capacity held in the West Region. The quarterly capacity on Northwest did not decline as dramatically as it did on Koch, but capacity was lower during the April 1997 and July 1997 quarters than during the other quarters (Figure D1).

Northwest had 74 different shippers during the eight-quarter period, but much of the decline seen in the 12-month comparisons for April and July was caused by capacity turnback on the part of only four shippers. Enron Capital & Trade Resources and Williams Energy Services,

both marketers, had 114 and 100 billion Btu per day of long-term firm capacity, respectively, on Northwest in the first two quarters, then had no capacity on Northwest in the remaining quarters.<sup>2</sup> Intermountain Gas Co., an LDC, had 102 billion Btu per day of capacity on Northwest in the first five quarters, but this changed to zero in July 1997 and subsequent quarters. And finally, Engage Energy, U.S. (the shipper type could not be determined) had 70 billion Btu per day of long-term firm capacity on Northwest during the first three quarters, but turned this capacity back, having no long-term capacity beginning with the January 1997 quarter. These four shippers turned back a total of 284 billion Btu per day of capacity on Northwest as of the October 1996 quarter and a total of 386 billion Btu per day as of the January 1997 quarter. Thus, they account for a significant proportion of the net decline in long-term capacity on Northwest shown in the 12-month comparisons for April and July.

As these examples on Koch Gateway and Northwest indicate, some turnback of capacity did take place during the eight quarters examined. While on Northwest, long-term capacity was reduced to zero on the part of some shippers, on Koch, capacity was turned back for several quarters, then resubscribed by those same shippers in later quarters.

## Individual Shipper Analysis

The analysis of the contracting behavior of individual shippers in Chapter 6 is based on a sample of 54 unique shipper-pipeline pairs representing those shippers who held the largest long-term contracts that expired during the period April 1, 1996, through March 31, 1998, in each of six U.S. regions.<sup>3</sup> The sample of shippers for this analysis was selected by identifying the 10 largest long-term firm transportation capacity contracts that expired between April 1, 1996, and March 31, 1998, in each region.

The number of expired contracts analyzed in the Midwest Region was increased to ensure that the analysis included at least 50 percent of the capacity that expired between April 1, 1996, and March 31, 1998, in each region

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<sup>2</sup>Both companies switched their long-term capacity to the same volume of short-term capacity for the October 1, 1997, quarter. After this, Enron had no capacity on Northwest and Williams had either 0 or 27 billion Btu per day of short-term capacity.

<sup>3</sup>This analysis uses the FERC Index of Customers data for each quarter from April 1996 through July 1998. Each quarterly filing provides the contracts due to expire during the 3 months following the first day of the quarter and all new contracts since the first day of the previous quarter.

(Figure D2). In the Midwest Region, the top 10 expired contracts represent only 30 percent of the expired capacity for the region. The next 10 largest expired long-term contracts were added to the regional analysis to arrive at 51 percent of the expired capacity. The analysis of shippers in the Central Region included 14 expired contracts, which represents 70 percent of the total expired long-term capacity in that region.<sup>4</sup>

The contracts with the largest amount of expired capacity provided the shipper name, pipeline name, and the quarter during which the capacity expired. The analysis then identified any other contracts needed to assemble the complete picture of the shipper's total capacity contracts with the pipeline company that expired during the selected quarter. This step only changed the total number of expired contracts for the Southeast and Southwest regions. The inclusion of additional expired contracts increased the number of contracts analyzed in the Southeast and Southwest from the original 10 to 11 and 13, respectively.

Once the sample of shippers and their expired long-term capacity contracts were assembled, the analysis identified the shipper reactions to contract expiration. Using the next quarterly index of customer filing, all of the shippers new capacity contracts with the pipeline company were identified and compared with the capacity, term, and service under the expired contracts (Tables D7 and D8).

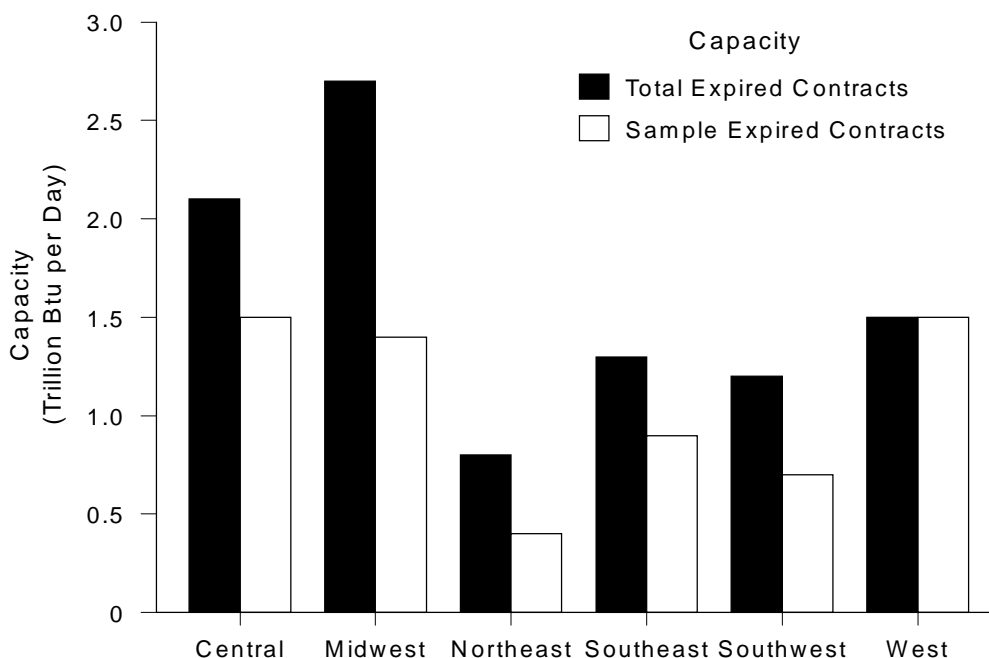
Changes in a shipper's number of contracts and amount of capacity reserved were easy to determine. However, determining whether a shipper changed the length (term) of a contract was more difficult to assess. In some cases, shippers may have increased the length of some contracts while reducing the length of others during the same quarter. Thus, this analysis weighted the length by the amount of the capacity for each contract to arrive at a weighted average contract length for the shipper's transportation portfolio before and after the contract expiration.

In some cases, the beginning date of a new contract was difficult to determine as several companies reported the same beginning date for both the expired and the new contracts. In such cases, the effective start date for the new contract was assumed to be the day following the end date

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<sup>4</sup>Because of a change in its filing method, Northern Natural Pipeline Company was excluded from the Index of Customer data for the analysis. The sample of the 10 largest contracts was determined from the remaining contracts. This resulted in seven shipper-pipeline pairs with 14 contracts.

**Figure D2. Regional Capacity Associated With Long-Term Contract Expirations, April 1, 1996 - March 31, 1998, Total and Sample**



Notes: Total expired contracts are for 64 interstate pipeline companies. The sample contracts were selected from the expired contracts with these companies resulting in 54 unique shipper/pipeline pairs. Long-term contracts are longer than 366 days.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filings for April 1, 1996 through January 1, 1998, FERC Bulletin Board (August 14, 1998).

of the expired contract. The revisions to the start dates were necessary to avoid the false increases in contract length that otherwise would have occurred.

## Assessment of Potential Turnback

To assess potential future capacity turnback, capacity release information was combined with contracted firm capacity data as reported during the period April 1, 1996, through July 1, 1998. To obtain a consistent set of data on both capacity from the Index of Customers and on capacity release, the set of 64 pipeline companies was reduced to 27. These 27 companies accounted for 82 percent of the firm capacity held by the original set of 64 companies as of July 1, 1998 (Table D3).

The smallest amount of daily capacity held by replacement shippers in each region during the heating seasons 1996-97 and 1997-98 was used to estimate the percentage of that region's firm contracted capacity that can reasonably be

expected to be turned back as shipper contracts expire. The regional share was calculated by dividing the smallest daily capacity release amount by the total contracted firm transportation capacity held under contract during the same day for the sample of 27 pipeline companies. Two turnback ratios were developed for each region since the released and firm contracted capacity data spanned two heating seasons. The smaller of the two was selected as the regional ratio in order to provide the more conservative estimate.

These regional turnback ratios from the sample of 27 pipeline companies were then multiplied by the amount of long-term firm transportation capacity under contract in each region as of July 1, 1998, for all 64 pipeline companies in the analysis in order to estimate the regional capacity turnback. It is unlikely that expiration of short-term contracts will result in a long-term turnback of transportation capacity. Therefore, all significant turnbacks were assumed to result from the expiration of long-term contracts. The regional capacity turnback estimates were summed to arrive at an estimate of the total amount of capacity that may be turned back to pipeline companies in the future.



An estimate of the timing of these turnbacks was also determined to assess the impact of the capacity turnback on the transportation markets. Because the specific firm transportation contracts associated with the released capacity cannot be identified, the respective turnback ratio was multiplied by each region's amount of long-term capacity expiring each year to calculate the regional turnback profiles. The six regional turnback profiles were

combined to arrive at a national capacity turnback profile. It may be likely that a greater proportion of early expirations will be turned back than later expirations, but without more specific data, applying the turnback ratio as a constant provides a baseline national profile that can be used to assess the potential impact of capacity turnback on the natural gas industry.

**Table D7. Characteristics of Expired and New Contracts for 54 Sampled Shipper/Pipeline Pairs**

Central Region												
Shipper/ Pipeline Co.	Sample Contracts due to Expire April 1, 1996 - March 31,1998					New Contracts Following Expiration					Change in Capacity	Change in Length of Contract (years)
	Quarter	Contracted Capacity (MMBtu/d)	Begin Date	End Date	Rate Schedule	Quarter	Contracted Capacity (MMBtu/d)	Begin Date	End Date	Rate Schedule		
Public Service of Colorado/ Colorado Interstate Gas Company												
	Jul 96	543,066	10/01/93	09/30/96	NNT-1	Oct 96	420,200	10/01/96	04/30/02	NNT-1	(122,866)	2.58
	Jul 96	149,880	10/01/93	09/30/96	TF-2	Oct 96	114,480	10/01/96	05/31/25	TF-2	(35,400)	25.68
						Oct 96	35,000	10/01/96	09/30/06	TF-2	35,000	10.00
						Oct 96	277,092	10/01/96	09/30/01	TF-1	277,092	5.00
						Oct 96	49,371	10/01/96	08/31/97	TF-1	49,371	0.92
						Oct 96	8,387	10/01/96	12/31/06	TF-1	8,387	10.25
						Oct 96	156,000	10/01/96	04/30/02	TF-3	156,000	5.58
Montana-Dakota Utilities Co./ Williston Basin P L Co.												
	Apr 97	239,159	11/01/93	06/30/97	FT-1	Jul 97	291,673	07/01/97	06/30/02	FT-1	52,514	1.34
	Apr 97	52,515	07/01/88	06/30/97	FT-1						(52,515)	(9.00)
	Apr 97	119,135	11/01/93	06/30/97	FTN-1	Jul 97	119,135	07/01/97	06/30/02	FTN-1	0	1.34
KN Energy, Inc./ KN Interstate Gas Transmission Co.												
	Jul 97	136,313	10/01/93	09/30/97	FT	Oct 97	136,313	10/01/93	09/30/98	FT	0	(3.00)
Anthem Energy/KN Interstate Gas Transmission Co.												
	Jul 96	50,000	10/01/93	08/31/96	FT	Oct 96	0				(50,000)*	(2.92)
Colorado Springs Utilities/Colorado Interstate Gas Company												
	Jul 96	40,747	10/01/93	09/30/96	TF-2	Oct 96	14,045	10/01/96	4/30/02	TF-2	(26,702)	2.58
	Jul 96	29,550	10/01/93	09/30/96	TF-2	Oct 96	12,854	10/01/96	4/30/02	TF-2	(16,696)	2.58
	Jul 96	20,780	10/01/93	09/30/96	NNT-1	Oct 96	62,495	10/01/96	4/30/02	NNT-1	41,715	2.58
	Jul 96	23,135	10/01/93	09/30/96	TF-1	Oct 96	23,135	10/01/96	4/30/02	TF-1	0	2.58
	Jul 96	20,000	11/01/93	09/30/96	TF-1	Oct 96	20,000	10/01/96	9/30/11	TF-1	0	12.09
						Oct 96	19,700	10/01/96	8/31/97	TF-1	19,700	0.92
Granite City Steel/Mississippi River Corp.												
	April 96	34,142	11/01/93	04/30/96	FTS	Jul 97	34,142	5/01/96	4/30/97	FTS	0	(1.50)
Questar Energy Trading/Trailblazer Pipeline Co.												
	Oct 97	31,800	11/01/95	10/31/97	FTS	Jan 98	31,800	11/01/95	10/31/98	FTS	0	(1.00)

See note at end of table.

**Table D7. Characteristics of Expired and New Contracts for 54 Sampled Shipper/Pipeline Pairs  
(Continued)**

Midwest Region												
Shipper/ Pipeline Co.	Sample Contracts due to Expire April 1, 1996 - March 31,1998					New Contracts Following Expiration					Change in Capacity	Change in Length of Contract (years)
	Quarter	Contracted Capacity (MMBtu/d)	Begin Date	End Date	Rate Schedule	Quarter	Contracted Capacity (MMBtu/d)	Begin Date	End Date	Rate Schedule		
Texas Eastern Transmission Corp./Trunkline Gas Co.												
	Oct 97	150,000	09/01/93	10/31/97	FT	Jan 98	150,000	01/01/98	10/31/99	FT	0	(2.34)
Midcon Gas Services Corp./Natural Gas P L Co. of America												
	Jan 98	97,500	02/01/97	03/31/98	FTS	Apr 98	37,500	02/01/97	03/31/99	FTS	(60,000)	(0.16)
Peoples Gas Light & Coke/Natural Gas P L Co. of America												
	Apr 97	65,000	03/01/96	04/30/97	FTS	Jul 97	30,000	05/01/97	04/30/99	FTS	(35,000)	0.83
	Apr 97	20,000	03/01/96	04/30/97	FTS	Jul 97	0				(20,000)*	(1.16)
	Jan 98	90,000	12/01/95	03/31/98	FTS	Apr 98	90,000	04/01/98	03/31/00	FTS	0	(0.33)
Illinois Power Company/Natural Gas P L Co. of America												
	Oct 96	89,454	11/13/93	11/30/96	FTS	Jan 97	68,545	11/13/93	11/30/98	FTS	(20,909)	(1.05)
						Jan 97	40,000	10/22/96	11/30/02	FTS	40,000	6.11
						Jan 97	40,000	11/05/96	11/30/02	FTS	40,000	6.07
Indiana Gas Company/Panhandle Eastern Pipe Line Co.												
	Jan 97	77,144	05/01/93	03/31/97	FFT	Apr 97	0				(77,144)*	(3.92)
	Jan 97	51,431	05/01/93	02/28/97	EFT	Apr 97	51,431	05/01/93	03/31/99	EFT	0	(1.75)
Illinois Power Company/Panhandle Eastern Pipe Line Co.												
	Apr 96	75,900	05/01/93	04/30/96	EFT	Apr 97	75,900	04/01/96	03/31/99	EFT	0	0.00
Texaco Natural Gas, Inc./Natural Gas P L Co. of America												
	Oct 96	75,000	11/01/94	10/31/96	FTS	Jan 97	75,000	11/01/94	10/31/97	FTS	0	(1.00)
	Oct 97	75,000	11/01/94	10/31/97	FTS	Jan 98	0				(75,000)*	(3.00)
Energy Source, Inc./Panhandle Eastern Pipe Line Co.												
	Oct 96	61,050	09/01/94	10/31/96	FT	Jan 97	0				(61,050)*	(2.17)
	Oct 96	60,000	09/01/94	10/31/96	EFT	Jan 97	25,000	11/01/96	10/31/97	EFT	(35,000)	(1.17)
	Oct 96	10,000	10/01/95	10/31/96	EFT	Jan 97	0				(10,000)*	(1.08)
General Motors Corp./ANR Pipeline Co.												
	Oct 97	60,000	11/01/93	12/31/97	FTS-1	Jan 98	60,000	11/01/93	03/31/01	FTS-1	0	(0.92)
Archer-Daniels-Midland Co./Natural Gas P L Co. of America												
	Oct 96	55,050	11/01/91	11/30/96	FTS	Jan 97	38,525	11/01/96	10/31/99	FTS	(16,525)	(2.09)
						Jan 97	31,525	11/01/96	10/31/99	FTS	31,525	3.00
Shell Offshore, Inc./ANR Pipeline Co.												
	Oct 96	55,000	11/01/93	10/31/96	FTS-1	Jan 97	0				(55,000)*	(3.00)
Proliance Energy, LLC/Panhandle Eastern Pipe Line Co.												
	Jan 97	50,000	05/01/93	03/31/97	EFT	Apr 97	77,144	05/01/93	03/31/00	EFT	27,144	(0.92)
	Jan 97	50,000	05/01/93	03/31/97	FT	Apr 97	51,431	05/01/93	02/29/00	EFT	1,431	(1.00)
						Apr 97	30,113	05/01/93	03/31/98	FT	30,113	4.92
Utilicorp United, Inc./Natural Gas P L Co. of America												
	Jan 98	50,000	11/01/96	03/31/98	FTS	Apr 98	0				(50,000)*	(1.41)
Norcen Explorer, Inc./Trunkline Gas Co.												
	Oct 97	45,000	02/01/96	12/31/97	FT	Jan 98	0				(45,000)*	(1.92)
East Ohio Gas Co./ANR Pipeline Co.												
	Oct 97	43,500	11/01/93	10/31/97	FTS-1	Jan 98	43,000	11/01/93	10/31/00	FTS-1	(500)	(1.00)

See note at end of table.

**Table D7. Characteristics of Expired and New Contracts for 54 Sampled Shipper/Pipeline Pairs (Continued)**

Northeast Region												
Shipper/ Pipeline Co.	Sample Contracts due to Expire April 1, 1996 - March 31,1998					New Contracts Following Expiration					Change in Capacity	Change in Length of Contract (years)
	Quarter	Contracted Capacity (MMBtu/d)	Begin Date	End Date	Rate Schedule	Quarter	Contracted Capacity (MMBtu/d)	Begin Date	End Date	Rate Schedule		
Boston Gas Company/Algonquin Gas Transmission Co.												
	Oct 96	97,059	09/01/94	10/31/96	AFT-1	Jan 97	97,059	11/01/96	11/01/97	AFT-1	0	(1.17)
	Oct 96	48,234	09/01/94	10/31/96	AFT-1	Jan 97	48,234	11/01/96	11/01/97	AFT-1	0	(1.17)
	Oct 96	30,000	09/01/94	10/31/96	AFT-E	Jan 97	30,000	11/01/96	11/01/97	AFT-E	0	(1.17)
Equitable Gas Co./Kentucky West Virginia Gas Co.												
	Oct 96	72,270	12/01/77	11/30/97	FTS	Jan 97	31,821	12/01/97	03/31/98	FTS	(40,449)	(19.68)
						Jan 97	5,242	12/01/97	11/30/98	FTS	5,242	1.00
National Fuel Gas Distribution Co./Tennessee Natural Gas Pipeline Co.												
	Jul 96	30,750	09/01/93	08/01/96	FT-A	Oct 96	0				(30,750)*	(2.92)
Bethlehem Steel Corp./Columbia Gas Transmission Corp.												
	Jan 98	30,707	11/01/93	03/31/98	FTS	Apr 98	30,707	04/01/98	03/31/99	FTS	0	(3.42)
UGI Utilities, Inc./Tennessee Natural Gas Pipeline Co.												
	Apr 96	30,000	09/01/93	06/22/96	FT-A	Jul 96	0				(30,000)*	(2.81)
Bethlehem Steel Corp./Tennessee Natural Gas Pipeline Co.												
	Jan 98	30,000	04/01/94	03/31/98	FT-A	Apr 98	0				(30,000)*	(4.00)
New Jersey Natural Gas/Carnegie Interstate Gas Co.												
	Oct 97	27,000	10/11/95	10/31/97	FTS	Jan 98	0				(27,000)*	(2.06)
PSC of North Carolina/CNG Transmission Corp.												
	Jan 98	25,000	12/01/96	02/28/98	FT	Apr 98	0				(25,000)*	(1.24)
Southeast Region												
Shipper/ Pipeline Co.	Sample Contracts due to Expire April 1, 1996 - March 31,1998					New Contracts Following Expiration					Change in Capacity	Change in Length of Contract (years)
	Quarter	Contracted Capacity (MMBtu/d)	Begin Date	End Date	Rate Schedule	Quarter	Contracted Capacity (MMBtu/d)	Begin Date	End Date	Rate Schedule		
Columbia Gas of Ohio/Columbia Gulf Transmission Co.												
	Oct 96	451,536	11/01/94	10/31/96	FTS2	Jan 97	457,693	11/01/94	10/31/98	FTS2	6,157	0.00
Exxon/Columbia Gulf Transmission Co.												
	Jan 98	110,000	11/01/93	3/31/98	FTS2	Apr 98	110,000	11/01/93	3/31/99	FTS2	0	(3.42)
Dayton Power & Light/Columbia Gulf Transmission Co.												
	Oct 96	51,351	11/01/93	10/31/96	FTS1	Jan 97	51,351	11/01/93	10/31/97	FTS1	0	(2.00)
Commonwealth Gas/Columbia Gulf Transmission Co.												
	Oct 96	49,312	11/01/94	10/31/97	FTS2	Jan 97	52,883	11/01/94	10/31/98	FTS2	3,571	(2.00)
Columbia Gas of PA/Columbia Gulf Transmission Co.												
	Oct 96	47,686	11/01/93	10/31/96	FTS2	Jan 97	44,600	10/31/93	10/31/98	FTS2	(3,086)	(1.00)
Texaco Natural Gas, Inc./Columbia Gulf Transmission Co.												
	Jul 97	35,000	11/01/95	8/31/97	FTS2	Oct 97	0				(35,000)*	(1.83)
	Jan 98	28,000	03/01/96	2/28/98	FTS2	Apr 98	0				(28,000)*	(2.00)
Louisville Gas & Electric/Texas Gas Transmission Corp.												
	Oct 96	30,000	11/01/91	10/31/96	FT	Jan 97	0				(30,000)*	(5.00)
Columbia Energy Services/Columbia Gulf Transmission Co.												
	Oct 97	30,000	11/01/94	10/31/97	FTS2	Jan 97	30,000	11/01/97	10/31/98	FTS2	0	(2.00)
	Oct 97	5,000	11/01/95	10/31/97	FTS2	Jan 97	0				(5,000)*	(2.00)
Columbia Gas of Kentucky/Columbia Gulf Transmission Co.												
	Oct 96	26,899	11/01/94	10/31/96	FTS2	Jan 97	27,500	11/01/94	10/31/98		601	0.00

See note at end of table.

**Table D7. Characteristics of Expired and New Contracts for 54 Sampled Shipper/Pipeline Pairs (Continued)**

Southwest Region												
Shipper/ Pipeline Co.	Sample Contracts due to Expire April 1, 1996 - March 31,1998					New Contracts Following Expiration					Change in Capacity	Change in Length of Contract (years)
	Quarter	Contracted Capacity (MMBtu/d)	Begin Date	End Date	Rate Schedule	Quarter	Contracted Capacity (MMBtu/d)	Begin Date	End Date	Rate Schedule		
Texas Gas Transmission Corp./High Island Offshore System												
	Apr 96	194,180	12/01/77	05/29/96	Rate Sch	Jul 96	194,180	05/30/96	05/29/97	Rate Sch	0	(17.51)
FINA Natural Gas Co./Koch Gateway Pipeline Co.												
	Jul 97	150,000	04/01/95	9/30/97	FTS	Oct 97	36,024	10/01/97	12/31/00	FTS	(113,976)	0.75
						Oct 97	29,482	10/01/97	03/31/98	FTS	29,482	0.50
						Oct 97	6,308	10/01/97	03/30/00	FTS	6,308	2.50
						Oct 97	4,808	10/01/97	03/31/98	FTS	4,808	0.50
						Oct 97	2,000	10/01/97	03/30/00	FTS	2,000	2.50
						Oct 97	589	10/01/97	03/31/98	FTS	589	0.50
						Oct 97	40	10/01/97	03/31/98	FTS	40	0.50
Pennunion Energy Services (Columbia Energy Services)/Sea Robin Pipeline Co.												
	Apr 97	74,160	04/01/94	04/01/97	FT	Jan 98	151,471	11/01/97	03/31/98	FT	77,311	(2.59)
Natural Gas Clearinghouse/NorAm Gas Transmission Co.												
	Jan 97	55,000	02/01/95	03/31/97	FT	Apr 97	0				(55,000)*	(2.16)
	Jan 97	20,000	04/01/95	03/31/97	FT	Apr 97	30,000	04/01/97	03/31/98		10,000	(1.00)
NorAm Energy Services/NorAm Gas Transmission Co.												
	Jul 96	30,000	11/01/91	08/31/96	FT	Oct 96	30,000	11/01/91	10/31/96	FT	0	(4.59)
	Jul 96	8,000	06/01/94	07/31/96	FT	Oct 96	0				(8,000)*	(2.17)
	Jul 96	1,300	08/01/94	07/31/96	FT	Oct 96	1,300	08/01/94	07/31/97	FT	0	(1.00)
	Oct 96	50,000	11/01/92	10/31/96	FT	Jan 97	50,000	11/01/96	03/31/97	FT	0	(3.59)
	Oct 96	30,000	11/01/91	10/31/96	FT	Jan 97	30,000	11/01/96	03/31/97	FT	0	(4.59)
	Oct 96	30,000	11/01/94	10/31/96	FT	Jan 97	20,000	11/01/96	10/31/97	FT	(10,000)	(1.00)
	Oct 96	75	11/01/94	10/31/96	FT	Jan 97	56,000	12/01/96	02/28/97	FT	55,925	(1.76)
International Paper Co./NorAm Gas Transmission Co.												
	Oct 96	30,000	05/01/89	12/31/96	FT	Jan 97	30,000	01/01/97	01/01/98	FT	0	(6.67)
Duke Energy Trading & Mktg/NorAm Gas Transmission Co.												
	Jan 97	30,000	12/01/92	3/31/97	FT	Apr 97	20,000	04/01/97	3/31/98	FT	(10,000)	(3.33)
						Apr 97	10,000	04/01/97	3/31/98	FT	10,000	1.00
West Region												
Shipper/ Pipeline Co.	Sample Contracts due to Expire April 1, 1996 - March 31,1998					New Contracts Following Expiration					Change in Capacity	Change in Length of Contract (years)
	Quarter	Contracted Capacity (MMBtu/d)	Begin Date	End Date	Rate Schedule	Quarter	Contracted Capacity (MMBtu/d)	Begin Date	End Date	Rate Schedule		
PG & E/ El Paso Natural Gas Co.												
	Jan 97	1,166,220	09/01/91	12/31/97	FT1	Apr 98	0				(1,166,220)*	(6.34)
Southern Co. Energy Mktg/Tranwestern Pipeline Co.												
	Oct 97	79,000	12/1/96	12/31/97	FTS-1	Jan 98	0				(79,000)*	(1.08)
BC Gas Utility/Northwest Pipeline Corp.												
	Apr 96	63,000	04/01/94	04/30/96	TF-2	Jul 96	63,000	05/01/96	05/01/97	TF-2	0	(1.08)
	Apr 97	11,934	12/15/95	04/30/97	TF-2	Jul 97	11,934	05/01/97	04/30/01	TF-2	0	2.62
Coastal Gas Marketing/Northwest Pipeline Corp.												
	Oct 96	50,000	11/01/94	10/31/96	TF-1	Jan 97	0				(50,000)*	(2.00)
	Oct 96	20,000	11/01/94	10/31/96	TF-1	Jan 97	0				(20,000)*	(2.00)
Petro-Canada Hydro Carbons, Inc./Northwest Pipeline Corp.												
	Oct 97	30,772	03/31/93	11/01/97	TF-1	Jan 98	30,772	11/02/97	11/01/98	TF-1	0	(3.59)
Chevron USA, Inc./EL Paso Natural Gas Co.												
	Jul 96	24,830	10/01/94	09/30/96	FT1	Oct 96	0				(24,830)*	(2.00)
Conoco, Inc./Tranwestern Pipeline Co.												
	Oct 96	20,000	03/01/94	11/02/96	FTS-1	Jan 97	0				(40,000)*	(2.68)
James River Corp./Northwest Pipeline Corp.												
	Oct 97	7,000	09/01/90	10/31/97	TF-1	Jan 98	7000	10/06/97	10/06/98	TF-1	0	(6.17)

\*All capacity associated with the contract was turned back.

MMBtu/d = Million Btu per day.

Note: The sample of expired contracts consists of contracts with the largest amount of capacity in each region that expire from April 1, 1996 through March 31, 1998.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filing for July 1, 1998, FERC Bulletin Board (August 14, 1998).

**Table D8. Characteristics of All Contracts from 54 Sampled Shipper/Pipeline Pairs**

Region	Shipper Type	Shipper	Pipeline Company	Number of Contracts			Capacity (MMBtu/day)			Change <sup>1</sup> in Length
				Before	After	Change	Before	After	Change	
				Expiration	Expiration		Expiration	Expiration		
Central										
	LDC	Public Service of Colorado	Colorado Interstate Gas Co.	4	9	5	703,296	1,070,880	367,584	+
	LDC	Montana-Dakota	Williston Basin P L Co.	4	3	-1	411,265	411,264	(1)	+
	LDC	KN Energy	KN Interstate Gas Transmission	3	3	0	143,313	143,313	0	-
	MARK	Anthem Energy	KN Interstate Gas Transmission	1	0	-1	50,000	0	(50,000)	-
	LDC	Colorado Springs Utilities	Colorado Interstate Gas Co.	5	6	1	134,212	152,229	18,017	+
	INDU	Granite City Steel	Mississippi River Transmission	3	3	0	55,347	55,347	0	-
	MARK	Questar Energy Trading	Trailblazer Pipeline Co.	2	2	0	50,880	50,880	0	-
			Total Change			4			335,600	
Midwest										
	PIPE	Texas Eastern Trans	Trunkline Gas Co.	1	1	0	150,000	150,000	0	-
	MARK	Midcon Gas	Natural Gas P L Co. of America	17	17	0	853,450	820,950	(32,500)	-
	LDC <sup>2</sup>	People's Gas Light & Coke	Natural Gas P L Co. of America	5	3	-2	721,000	330,000	(391,000)	+
	LDC	Illinois Power	Natural Gas P L Co. of America	1	3	2	89,454	149,454	60,000	+
	LDC	Indiana Gas	Panhandle Eastern Pipe Line Co.	4	1	-3	218,578	51,431	(167,147)	+
	LDC <sup>3</sup>	Illinois Power	Panhandle Eastern Pipe Line Co.	3	2	-1	176,140	100,240	(75,900)	+
	MARK	Texaco Natural Gas, Inc.	Natural Gas P L Co. of America	4	2	-2	113,500	28,500	(85,000)	-
	MARK	Energy Source, Inc.	Panhandle Eastern Pipe Line Co.	3	1	-2	131,050	25,000	(106,050)	-
	INDU	General Motors Corp.	ANR Pipeline Co.	7	4	-3	86,120	81,700	(4,420)	-
	INDU	Archer Daniels-Midland	Natural Gas P L Co. of America	4	4	0	86,050	86,050	0	-
	OTHR	Shell Offshore, Inc.	ANR Pipeline Co.	1	0	-1	55,000	0	(55,000)	-
	MARK	Proliance Energy, LLC	Panhandle Eastern Pipe Line Co.	5	11	6	155,192	269,257	114,065	-
	LDC	Utilicorp	Natural Gas P L Co. of America	1	0	-1	50,000	0	(50,000)	-
	OTHR	Norcan Explorer	Trunkline Gas Co.	1	0	-1	45,000	0	(45,000)	-
	LDC	East Ohio Gas	ANR Pipeline Co.	3	2	-1	100,000	56,000	(44,000)	-
			Total Change			-9			(881,861)	
Northeast										
	LDC	Boston Gas	Agonquin Gas Transmission Co.	9	11	2	279,534	285,814	6,280	-
	LDC	Equitable Gas	Kentucky-West Virginia Gas Co.	2	3	1	85,948	50,741	(35,207)	-
	LDC	National Fuel Gas Dist.	Tennessee Natural Gas Pipeline	4	3	-1	279,534	248,708	(30,826)	-
	INDU	Bethlehem Steel Corp.	Columbia Gas Transmission	3	3	0	35,139	35,139	0	-
	LDC	UGI Utilities	Tennessee Natural Gas Pipeline	1	0	-1	30,000	0	(30,000)	-
	INDU	Bethlehem Steel Corp.	Tennessee Natural Gas Pipeline	1	0	-1	30,000	0	(30,000)	-
	LDC	NJ Natural Gas	Carnegie Interstate Gas Co.	1	0	-1	27,000	0	(27,000)	-
	LDC	PSC of North Carolina	CNG Transmission Corp.	6	0	-6	90,035	65,035	(25,000)	-
			Total Change			-7			(171,677)	
Southeast										
	LDC	Columbia Gas of Ohio	Columbia Gulf Transmission Co.	3	2	-1	933,126	933,126	0	-
	MARK	Exxon	Columbia Gulf Transmission Co.	2	2	0	155,000	155,000	0	-
	LDC	Dayton Power & Light	Columbia Gulf Transmission Co.	1	1	0	51,351	51,351	0	-
	LDC	Commonwealth Gas	Columbia Gulf Transmission Co.	4	2	-2	108,713	108,713	0	-
	LDC	Columbia Gas of PA	Columbia Gulf Transmission Co.	3	2	-1	93,286	88,232	(5,054)	-
	MARK	Texaco Natural Gas, Inc.	Columbia Gulf Transmission Co.	3	1	-2	86,000	23,000	(63,000)	-
	LDC	Louisville Gas & Electric	Texas Gulf Transmission Corp.	2	0	-2	54,000	0	(54,000)	-
	MARK	Columbia Energy Services	Columbia Gulf Transmission Co.	5	4	-1	100,000	95,000	(5,000)	-
	LDC	Columbia Gas of Kentucky	Columbia Gulf Transmission Co.	3	2	-1	56,491	56,491	0	-
			Total Change			-10	1,637,985	1,510,913	(127,054)	
Southwest										
	LDC	Texas Gas Trans. Corp.	High Island Offshore System	2	2	0	215,460	215,460	0	-
	MARK	FINA Natural Gas	Koch Gateway Pipeline Co.	1	7	6	150,000	79,521	(70,479)	-
	MARK	Pennunion Energy Service	Sea Robin Pipeline Co.	1	1	0	74,160	151,471	77,311	-
	MARK	Natural Gas Clearinghouse	Noram Gas Transmission	3	2	-1	95,000	60,000	(35,000)	-
	MARK	Noram Energy	Noram Gas Transmission	20	19	-1	199,325	237,050	37,725	-
	INDU	International Paper	Noram Gas Transmission	1	1	0	30,000	30,000	0	-
	MARK	Duke Energy	Noram Gas Transmission	1	2	1	30,000	30,000	0	-
			Total Change			5			9,557	

See note at end of table.

**Table D8. Characteristics of All Contracts from 54 Sampled Shipper/Pipeline Pairs (Continued)**

Region	Shipper Type	Shipper	Pipeline Company	Number of Contracts			Capacity (MMBtu/day)			Change <sup>1</sup> in Length
				Before Expiration	After Expiration	Change	Before Expiration	After Expiration	Change	
West	LDC	PG & E	El Paso Natural Gas Co.	1	0	-1	1,166,220	0	(1,166,220)	-
	MARK	Southern Co., Energy Mktg	Transwestern Pipeline Co.	2	1	-1	109,000	30,000	(79,000)	-
	LDC	BC Gas	Northwestern Pipeline Corp.	2	2	0	74,934	74,934	0	-
	MARK	Coastal Gas Marketing	Northwestern Pipeline Corp.	4	0	-4	94,562	0	(94,562)	-
	MARK	Petro-Canada Hydro Carbons	Northwestern Pipeline Corp.	2	2	0	61,543	61,543	0	-
	INDU	Chevron USA	El Paso Natural Gas Co.	1	0	-1	24,830	0	(24,830)	-
	MARK	Conoco, Inc.	Transwestern Pipeline Co.	4	3	-1	50,000	40,000	(10,000)	-
	INDU	James River Corp.	Northwest Pipeline Corp.	3	3	0	17,431	17,431	0	-
				<b>Total Change</b>		<b>-8</b>	<b>(1,374,702)</b>			

<sup>1</sup>For definition of Change in Length, see "Individual Shipper Analysis," p. 205.

<sup>2</sup>People's Gas Light & Coke and Natural Gas Pipe Line Co. of America had three contracts in the sample, but they expired during 2 separate quarters. By taking the weighted average, People's Gas Light & Coke experiences an increase in overall length of the terms, even though two contracts decreased in length.

<sup>3</sup>Weighted average appears to be a decrease by 1 day. The original contract expired in 1996 which was a leap year, so it was recorded as no change.

MMBtu = Million Btu; LDC = Local distribution company; MARK = Marketer; PIPE = Pipeline company; INDU = Industrial.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filings for April 1, 1996 through April 1, 1998, FERC Bulletin Board (August 14, 1998).

## Additional Tables and Graphs

**Table D9. Characteristics of Firm Transportation Capacity Under New Contracts Effective During Each Quarter, April 1, 1996 - July 1, 1998**

Quarter	All Contracts			Long-Term Contracts <sup>a</sup>			Short-Term Contracts <sup>b</sup>		
	Capacity (MMBtu per day)	Number of Contracts	Average Term (years)	Capacity (MMBtu per day)	Number of Contracts	Average Term (years)	Capacity (MMBtu per day)	Number of Contracts	Average Term (months)
<b>1996</b>									
April	7,456,872	566	5.7	2,107,363	121	7.0	5,349,509	445	5.3
July	5,428,360	422	5.2	1,325,567	81	5.8	4,102,793	341	5.1
October	8,076,494	492	4.6	4,485,545	206	5.1	3,590,949	286	4.3
<b>1997</b>									
January	10,755,664	981	7.4	3,652,088	246	7.8	7,103,576	735	7.3
April	5,150,956	491	4.5	710,904	52	5.2	4,440,052	439	4.4
July	4,841,854	392	5.6	1,710,542	72	7.4	3,131,312	320	5.2
October	3,450,632	361	5.3	1,263,502	78	7.1	2,187,130	283	4.8
<b>1998</b>									
January	10,941,370	1,004	7.9	3,993,608	266	9.1	6,947,762	738	7.4
April	5,017,717	391	6.1	1,816,463	85	5.7	3,201,254	306	6.2
July	4,064,427	357	5.9	652,105	61	5.4	3,412,322	296	6.0

<sup>a</sup>Long-term contracts are longer than 366 days.

<sup>b</sup>Short-term contracts are 366 days or less.

MMBtu per day = Million Btu per day.

Note: Data are for 64 interstate pipeline companies.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filings for April 1, 1996 through July 1, 1998, FERC Bulletin Board (August 14, 1998).

**Table D10. Capacity Associated with Expiring Firm Transportation Contracts by Region, 1998 - 2025, as Reported on July 1, 1998**  
(Million Btu per Day)

Region	Total Capacity as of 07/01/98	Expirations			
		1998 <sup>a</sup>	1999-2003	2004-2008	2009-2025 <sup>b</sup>
Central	12,601,583	1,459,755	7,524,633	1,771,280	1,845,915
Midwest	20,800,280	3,233,811	11,728,323	3,752,100	2,086,046
Northeast	31,988,518	1,628,529	12,753,152	8,269,840	9,336,997
Southeast	9,848,292	1,158,194	3,168,093	4,647,104	874,901
Southwest	5,978,780	1,071,192	4,071,970	675,268	160,350
West	15,326,320	1,377,043	3,076,346	7,539,540	3,333,391
<b>Total</b>	<b>96,543,773</b>	<b>9,928,524</b>	<b>42,322,517</b>	<b>26,655,132</b>	<b>17,637,600</b>

<sup>a</sup>Data are for the last 6 months of 1998.

<sup>b</sup>Data for 2025 include a total of 20,600 million Btu per day of capacity that expires in the Southwest beyond 2025.

Note: Data are for 64 interstate pipeline companies.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers filing for July 1, 1998, FERC Bulletin Board (August 14, 1998).

**Table D11. Expiration of Firm Transportation Capacity Under Contract as of July 1, 1998**  
(Million Btu per Day)

Pipeline Company	FERC ID	Total Capacity Under Contract As of July 1, 1998	Rollover and Short-term Capacity Expiring 1998 <sup>a</sup>	Long-term Capacity Expiring 1998 <sup>a</sup>	Total Capacity Expiring 1998 <sup>a</sup>	Total Capacity Expiring 1999
<b>Central</b>						
Canyon Creek Compression Co.	67	200,260	0	0	0	24,242
Colorado Interstate Gas Co.	32	2,441,588	167,310	83,671	250,981	39,753
K N Interstate Gas Transmission Co.	53	741,437	0	173,622	173,622	23,293
MIGC, Inc.	47	90,000	33,000	0	33,000	0
Mississippi River Transmission Corp.	25	1,622,687	135,292	46,500	181,792	1,024,237
Northern Border Pipeline Co.	9	1,695,686	0	0	0	0
Questar Pipeline Co.	55	1,122,904	37,072	123,733	160,805	837,152
Traillblazer Pipeline Co.	68	605,017	0	31,800	31,800	51,940
Westgas Interstate Inc.	121	13,372	0	0	0	13,372
Williams Natural Gas Co.	43	2,845,768	421,911	175,398	597,309	201,544
Williston Basin Interstate Pipeline Co.	49	438,185	8,653	647	9,300	824
Wyoming Interstate Co., Ltd.	76	784,679	0	21,146	21,146	0
<b>Total Central</b>		<b>12,601,583</b>	<b>803,238</b>	<b>656,517</b>	<b>1,459,755</b>	<b>2,216,357</b>
<b>Midwest</b>						
ANR Pipeline Co.	48	5,157,798	292,536	98,425	390,961	602,099
Crossroads Pipeline Co.	123	153,466	57,000	50,000	107,000	10,000
Great Lakes Gas Transmission, L.P.	51	3,884,669	324,450	89,771	414,221	483,429
Michigan Gas Storage Co.	124	300,000	90,000	0	90,000	0
Midwestern Gas Transmission Co.	5	745,597	2,000	1,500	3,500	0
Natural Gas Pipeline Co. of America	26	5,450,813	184,448	1,326,577	1,511,025	950,221
Panhandle Eastern Pipe Line Co.	28	2,580,112	103,822	126,770	230,592	577,904
Trunkline Gas Co.	30	2,027,489	182,441	222,704	405,145	409,346
Viking Gas Transmission Co.	82	500,336	31,017	50,350	81,367	0
<b>Total Midwest</b>		<b>20,800,280</b>	<b>1,267,714</b>	<b>1,966,097</b>	<b>3,233,811</b>	<b>3,032,999</b>
<b>Northeast</b>						
Algonquin Gas Transmission Co.	20	1,981,655	193,205	0	193,205	105,427
Carnegie Interstate Pipeline Co.	120	38,000	15,000	10,000	25,000	13,000
CNG Transmission Corp.	22	4,849,918	120,000	0	120,000	33,502
Columbia Gas Transmission Corp.	21	5,271,781	452,415	92,891	545,306	177,619
Equitrans, L.P.	24	374,771	26,026	0	26,026	10,964
Granite State Gas Transmission, Inc.	4	177,367	0	0	0	0
Iroquois Gas Transmission System, L.P.	110	1,115,482	78,538	10,115	88,653	0
Kentucky West Virginia Gas Co.	46	103,442	31,172	0	31,172	72,270
National Fuel Gas Supply Corp.	16	1,888,276	11,469	0	11,469	92,589
NORA Transmission Co.	100	35,000	0	0	0	35,000
Tennessee Gas Pipeline Co.	9	5,242,068	36,172	93,362	129,534	160,221
Texas Eastern Transmission Corp.	17	4,793,156	105,309	63,614	168,923	682,021
Transcontinental Gas Pipe Line Corp.	29	6,117,602	235,938	53,303	289,241	485,398
<b>Total Northeast</b>		<b>31,988,518</b>	<b>1,305,244</b>	<b>323,285</b>	<b>1,628,529</b>	<b>1,868,011</b>
<b>Southeast</b>						
Chandeleur Pipe Line Co.	97	280,000	0	0	0	190,000
Columbia Gulf Transmission Co.	70	3,197,179	132,085	684,961	817,046	230,976
East Tennessee Natural Gas Co.	2	645,264	0	0	0	0
Florida Gas Transmission Co.	34	1,533,594	40,000	1,800	41,800	24,601
KO Transmission Co.	131	221,000	0	0	0	0
Midcoast Interstate Transmission Inc. (aka Ala-Tenn)	1	157,844	205	0	205	1,272
Mobile Bay Pipeline Co.	114	27,885	0	27,885	27,885	0
South Georgia Natural Gas Co.	8	122,276	3,265	0	3,265	23,306
Southern Natural Gas Co.	7	2,433,343	66,591	97,184	163,775	112,333
Texas Gas Transmission Corp.	18	1,229,907	30,872	73,346	104,218	308,120
<b>Total Southeast</b>		<b>9,848,292</b>	<b>273,018</b>	<b>885,176</b>	<b>1,158,194</b>	<b>890,608</b>
<b>Southwest</b>						
Black Marlin Pipeline Co.	88	83,288	8,288	75,000	83,288	0
High Island Offshore System	77	21,280	0	0	0	0
Koch Gateway Pipeline Co.	11	2,261,610	117,100	77,854	194,954	1,528,441
Mid Louisiana Gas Co.	15	127,563	21,430	44,133	65,563	47,000
Noram Gas Transmission Co.	31	2,632,318	368,383	164,358	532,741	244,449
Oktex Pipeline Co.	116	33,600	0	0	0	17,600
Ozark Gas Transmission System	73	38,249	1,219	23,259	24,478	0
Sabine Pipe Line Co.	79	215,000	25,000	0	25,000	0
Sea Robin Pipeline Co.	6	411,829	104,515	0	104,515	89,105
Stingray Pipeline Co.	69	154,043	23,153	17,500	40,653	0
<b>Total Southwest</b>		<b>5,978,780</b>	<b>669,088</b>	<b>402,104</b>	<b>1,071,192</b>	<b>1,926,595</b>
<b>West</b>						
El Paso Natural Gas Co.	33	4,738,219	322,449	0	322,449	1,548,042
Kern River Gas Transmission Co.	99	762,200	25,750	0	25,750	0
Mojave Pipeline Co.	92	392,600	0	0	0	0
Northwest Pipeline Corp.	37	3,342,393	310,814	24,097	334,911	161,450
Pacific Gas Transmission Co.	86	2,956,278	182,973	0	182,973	18,470
Pacific Interstate Offshore Co.	64	35,000	0	35,000	35,000	0
Paiute Pipeline Co.	41	75,075	0	0	0	0
Riverside Pipeline Co., L.P.	8	130,000	0	0	0	0
Transwestern Pipeline Co.	42	2,724,795	454,710	21,250	475,960	327,300
Tuscarora Gas Transmission Co.	126	169,760	0	0	0	0
<b>Total West</b>		<b>15,326,320</b>	<b>1,296,696</b>	<b>80,347</b>	<b>1,377,043</b>	<b>2,055,262</b>
<b>Total United States</b>		<b>96,543,773</b>	<b>5,614,998</b>	<b>4,313,526</b>	<b>9,928,524</b>	<b>11,989,832</b>

See note at end of table.



**Table D11. Expiration of Firm Transportation Capacity Under Contract as of July 1, 1998 (Continued)**  
(Million Btu per Day)

Pipeline Company	Total Capacity Expiring 2000	Total Capacity Expiring 2001	Total Capacity Expiring 2002	Total Capacity Expiring 2003	Total Capacity Expiring 2004	Total Capacity Expiring 2005
<b>Central</b>						
Canyon Creek Compression Co.	0	0	176,018	0	0	0
Colorado Interstate Gas Co.	108,688	451,565	940,798	58,720	48,170	77,488
K N Interstate Gas Transmission Co.	2,850	122,031	6,600	2,500	0	7,000
MIGC, Inc.	12,000	0	0	0	0	0
Mississippi River Transmission Corp.	28,457	72,792	185,409	0	0	130,000
Northern Border Pipeline Co.	0	794,896	0	225,769	134,517	117,762
Questar Pipeline Co.	5,000	18,450	22,698	15,000	12,859	20,000
Trailblazer Pipeline Co.	0	42,951	203,780	62,946	39,080	20,000
Westgas Interstate Inc.	0	0	0	0	0	0
Williams Natural Gas Co.	16,833	465,919	384,384	79,826	0	39,268
Williston Basin Interstate Pipeline Co.	285	0	418,605	0	0	456
Wyoming Interstate Co., Ltd.	0	6,160	20,600	355,746	96,529	0
<b>Total Central</b>	<b>174,113</b>	<b>1,974,764</b>	<b>2,358,892</b>	<b>800,507</b>	<b>331,155</b>	<b>411,974</b>
<b>Midwest</b>						
ANR Pipeline Co.	592,136	329,717	186,543	1,398,898	36,151	67,329
Crossroads Pipeline Co.	30,000	0	0	0	0	6,466
Great Lakes Gas Transmission, L.P.	508,469	13,294	112,688	179,463	87,645	1,464,986
Michigan Gas Storage Co.	0	0	0	0	0	0
Midwestern Gas Transmission Co.	332,097	0	40,000	0	260,000	110,000
Natural Gas Pipeline Co. of America	2,020,730	451,085	137,950	41,000	0	23,408
Panhandle Eastern Pipe Line Co.	573,497	209,251	218,216	87,268	76,509	170,480
Trunkline Gas Co.	213,292	71,200	636,115	8,073	115,649	0
Viking Gas Transmission Co.	256,798	15,000	32,544	0	0	0
<b>Total Midwest</b>	<b>4,527,019</b>	<b>1,089,547</b>	<b>1,364,056</b>	<b>1,714,702</b>	<b>575,954</b>	<b>1,842,669</b>
<b>Northeast</b>						
Algonquin Gas Transmission Co.	91,794	0	77,500	0	43,712	0
Carnegie Interstate Pipeline Co.	0	0	0	0	0	0
CNG Transmission Corp.	600	1,894,878	769,331	148,116	7,500	87,215
Columbia Gas Transmission Corp.	13,331	17,350	47,730	52,425	3,317,117	1,400
Equitrans, L.P.	18,288	276,000	42,485	1,008	0	0
Granite State Gas Transmission, Inc.	170,247	0	0	0	0	0
Iroquois Gas Transmission System, L.P.	10,300	0	0	0	0	61,800
Kentucky West Virginia Gas Co.	0	0	0	0	0	0
National Fuel Gas Supply Corp.	32,128	13,056	82,924	1,290,522	30,262	132,530
NORA Transmission Co.	0	0	0	0	0	0
Tennessee Gas Pipeline Co.	3,581,988	72,020	170,772	76,810	291,616	15,120
Texas Eastern Transmission Corp.	484,992	133,201	423,955	200,611	79,014	35,886
Transcontinental Gas Pipe Line Corp.	366,642	87,828	216,463	19,846	358,523	1,236,490
<b>Total Northeast</b>	<b>4,770,310</b>	<b>2,494,333</b>	<b>1,831,160</b>	<b>1,789,338</b>	<b>4,127,744</b>	<b>1,570,441</b>
<b>Southeast</b>						
Chandeleur Pipe Line Co.	75,000	0	0	15,000	0	0
Columbia Gulf Transmission Co.	1,302	83,000	0	11,088	1,896,867	0
East Tennessee Natural Gas Co.	393,511	4,696	11,683	8,889	0	1,000
Florida Gas Transmission Co.	337,478	10,000	0	12,156	8,787	551,297
KO Transmission Co.	0	0	0	0	0	0
Midcoast Interstate Transmission Inc. (aka Ala-Tenn)	26,647	15,556	44,795	65,111	0	0
Mobile Bay Pipeline Co.	0	0	0	0	0	0
South Georgia Natural Gas Co.	384	0	12,978	258	36,050	26,592
Southern Natural Gas Co.	120,468	22,346	127,996	704,376	36,776	173,366
Texas Gas Transmission Corp.	96,476	20,240	0	56,051	21,450	261,527
<b>Total Southeast</b>	<b>1,051,266</b>	<b>155,838</b>	<b>197,452</b>	<b>872,929</b>	<b>1,999,930</b>	<b>1,013,782</b>
<b>Southwest</b>						
Black Marlin Pipeline Co.	0	0	0	0	0	0
High Island Offshore System	21,280	0	0	0	0	0
Koch Gateway Pipeline Co.	96,476	17,808	74,081	42,000	200,000	32,600
Mid Louisiana Gas Co.	0	15,000	0	0	0	0
Noram Gas Transmission Co.	710,523	89,330	825,675	44,700	7,900	157,500
Oktex Pipeline Co.	0	16,000	0	0	0	0
Ozark Gas Transmission System	0	13,771	0	0	0	0
Sabine Pipe Line Co.	20,000	0	60,000	0	60,000	0
Sea Robin Pipeline Co.	41,200	0	53,560	0	0	95,275
Stingray Pipeline Co.	0	3,971	0	0	79,419	0
<b>Total Southwest</b>	<b>889,479</b>	<b>155,880</b>	<b>1,013,316</b>	<b>86,700</b>	<b>347,319</b>	<b>285,375</b>
<b>West</b>						
El Paso Natural Gas Co.	163,335	27,065	88,105	46,035	0	327,769
Kern River Gas Transmission Co.	0	0	0	0	0	0
Mojave Pipeline Co.	0	0	0	0	0	0
Northwest Pipeline Corp.	0	13,434	0	0	878,626	22,000
Pacific Gas Transmission Co.	0	0	20,000	0	0	941,745
Pacific Interstate Offshore Co.	0	0	0	0	0	0
Paiute Pipeline Co.	0	0	0	75,075	0	0
Riverside Pipeline Co., L.P.	0	0	0	0	0	0
Transwestern Pipeline Co.	241,375	171,000	65,714	109,946	125,000	506,000
Tuscarora Gas Transmission Co.	0	0	0	0	0	0
<b>Total West</b>	<b>404,710</b>	<b>211,499</b>	<b>173,819</b>	<b>231,056</b>	<b>1,003,626</b>	<b>1,797,514</b>
<b>Total United States</b>	<b>11,816,897</b>	<b>6,081,861</b>	<b>6,938,695</b>	<b>5,495,232</b>	<b>8,385,728</b>	<b>6,921,755</b>

See note at end of table.

**Table D11. Expiration of Firm Transportation Capacity Under Contract as of July 1, 1998 (Continued)**  
(Million Btu per Day)

Pipeline Company	Total Capacity Expiring 2006	Total Capacity Expiring 2007	Total Capacity Expiring 2008	Total Capacity Expiring 2009	Total Capacity Expiring 20010	Total Capacity Expiring 2011
<b>Central</b>						
Canyon Creek Compression Co.	0	0	0	0	0	0
Colorado Interstate Gas Co.	67,017	86,500	21,779	35,145	6,000	51,204
K N Interstate Gas Transmission Co.	30,600	146,674	37,000	100,000	54,267	0
MIGC, Inc.	0	45,000	0	0	0	0
Mississippi River Transmission Corp.	0	0	0	0	0	0
Northern Border Pipeline Co.	29,441	58,882	111,896	47,105	135,298	0
Questar Pipeline Co.	0	30,177	0	0	0	763
Trailblazer Pipeline Co.	0	121,320	10,000	0	0	0
Westgas Interstate Inc	0	0	0	0	0	0
Williams Natural Gas Co.	0	0	10,280	827	1,308	66,801
Williston Basin Interstate Pipeline Co.	0	0	0	0	0	0
Wyoming Interstate Co., Ltd.	0	221,585	0	0	0	0
<b>Total Central</b>	<b>127,058</b>	<b>710,138</b>	<b>190,955</b>	<b>183,077</b>	<b>196,873</b>	<b>118,768</b>
<b>Midwest</b>						
ANR Pipeline Co.	104,563	57,957	439,291	33,126	33,115	550,760
Crossroads Pipeline Co.	0	0	0	0	0	0
Great Lakes Gas Transmission, L.P.	52,829	0	227,915	0	15,651	88,689
Michigan Gas Storage Co.	0	0	0	0	0	0
Midwestern Gas Transmission Co.	0	0	0	0	0	0
Natural Gas Pipeline Co. of America	1,400	272,500	10,236	31,258	0	0
Panhandle Eastern Pipe Line Co.	75,400	5,336	7,600	5,800	0	0
Trunkline Gas Co.	0	31,050	0	0	0	0
Viking Gas Transmission Co.	0	0	47,400	0	0	25,627
<b>Total Midwest</b>	<b>234,192</b>	<b>366,843</b>	<b>732,442</b>	<b>70,184</b>	<b>48,766</b>	<b>665,076</b>
<b>Northeast</b>						
Algonquin Gas Transmission Co.	23,886	27,000	40,000	57,929	125,000	221,400
Carnegie Interstate Pipeline Co.	0	0	0	0	0	0
CNG Transmission Corp.	433,641	102,813	301,213	103,100	51,395	192,438
Columbia Gas Transmission Corp.	32,500	3,000	20,386	565,075	92,097	47,500
Equitrans, L.P.	0	0	0	0	0	0
Granite State Gas Transmission, Inc.	0	0	0	0	0	0
Iroquois Gas Transmission System, L.P.	15,406	0	31,065	16,995	0	193,743
Kentucky West Virginia Gas Co.	0	0	0	0	0	0
National Fuel Gas Supply Corp.	37,290	130,581	18,088	0	0	0
NORA Transmission Co.	0	0	0	0	0	0
Tennessee Gas Pipeline Co.	0	50,160	0	3,477	79,336	134,150
Texas Eastern Transmission Corp.	184,665	18,000	260,000	83,809	110,250	29,000
Transcontinental Gas Pipe Line Corp.	670,322	114,448	57,191	492,130	619,432	32,036
<b>Total Northeast</b>	<b>1,397,710</b>	<b>446,002</b>	<b>727,943</b>	<b>1,322,515</b>	<b>1,077,510</b>	<b>850,267</b>
<b>Southeast</b>						
Chandeleur Pipe Line Co.	0	0	0	0	0	0
Columbia Gulf Transmission Co.	30,000	23,000	15,627	62,089	4,601	21,583
East Tennessee Natural Gas Co.	7,500	18,657	0	0	113,416	0
Florida Gas Transmission Co.	216	8,611	0	5,211	0	10,706
KO Transmission Co.	221,000	0	0	0	0	0
Midcoast Interstate Transmission Inc. (aka Ala-Tenn)	0	0	0	0	0	0
Mobile Bay Pipeline Co.	0	0	0	0	0	0
South Georgia Natural Gas Co.	6,180	13,263	0	0	0	0
Southern Natural Gas Co.	202,167	327,621	405,925	13,390	0	0
Texas Gas Transmission Corp.	201,092	62,533	90,000	8,200	0	0
<b>Total Southeast</b>	<b>668,155</b>	<b>453,685</b>	<b>511,552</b>	<b>88,890</b>	<b>118,017</b>	<b>32,289</b>
<b>Southwest</b>						
Black Marlin Pipeline Co.	0	0	0	0	0	0
High Island Offshore System	0	0	0	0	0	0
Koch Gateway Pipeline Co.	0	0	0	0	0	0
Mid Louisiana Gas Co.	0	0	0	0	0	0
Noram Gas Transmission Co.	0	5,000	0	0	0	0
Oktex Pipeline Co.	0	0	0	0	0	0
Ozark Gas Transmission System	0	0	0	0	0	0
Sabine Pipe Line Co.	0	0	0	0	0	50,000
Sea Robin Pipeline Co.	0	7,574	0	0	0	0
Stingray Pipeline Co.	0	30,000	0	0	0	0
<b>Total Southwest</b>	<b>0</b>	<b>42,574</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50,000</b>
<b>West</b>						
El Paso Natural Gas Co.	1,176,450	885,519	0	0	0	153,450
Kern River Gas Transmission Co.	0	726,150	0	0	0	0
Mojave Pipeline Co.	0	392,500	0	0	100	0
Northwest Pipeline Corp.	0	109,078	474,493	263,761	61,175	102,000
Pacific Gas Transmission Co	259,800	0	0	15,708	0	0
Pacific Interstate Offshore Co	0	0	0	0	0	0
Paiute Pipeline Co.	0	0	0	0	0	0
Riverside Pipeline Co., L.P.	0	0	0	130,000	0	0
Transwestern Pipeline Co.	112,500	500,000	90,000	0	0	0
Tuscarora Gas Transmission Co.	11,110	800	0	0	0	0
<b>Total West</b>	<b>1,559,860</b>	<b>2,614,047</b>	<b>564,493</b>	<b>409,469</b>	<b>61,275</b>	<b>255,450</b>
<b>Total United States</b>	<b>3,986,975</b>	<b>4,633,289</b>	<b>2,727,385</b>	<b>2,074,135</b>	<b>1,502,441</b>	<b>1,971,850</b>

See note at end of table.

**Table D11. Expiration of Firm Transportation Capacity Under Contract as of July 1, 1998 (Continued)**  
(Million Btu per Day)

Pipeline Company	Total Capacity Expiring 2012	Total Capacity Expiring 2013	Total Capacity Expiring 2014	Total Capacity Expiring 2015	Total Capacity Expiring 20016	Total Capacity Expiring 2017
<b>Central</b>						
Canyon Creek Compression Co.	0	0	0	0	0	0
Colorado Interstate Gas Co.	17,600	18,000	0	0	0	0
K N Interstate Gas Transmission Co.	35,000	0	0	0	0	0
MIGC, Inc.	0	0	0	0	0	0
Mississippi River Transmission Corp.	0	0	0	0	0	0
Northern Border Pipeline Co.	40,120	0	0	0	0	0
Questar Pipeline Co.	0	0	0	0	0	0
Trailblazer Pipeline Co.	0	0	0	0	0	0
Westgas Interstate Inc.	0	0	0	0	0	0
Williams Natural Gas Co.	30,255	896,231	0	28,849	0	16,134
Williston Basin Interstate Pipeline Co.	8,240	475	0	0	0	0
Wyoming Interstate Co., Ltd.	0	0	0	0	21,699	0
<b>Total Central</b>	<b>131,215</b>	<b>914,706</b>	<b>0</b>	<b>28,849</b>	<b>21,699</b>	<b>16,134</b>
<b>Midwest</b>						
ANR Pipeline Co.	0	106,252	207,900	0	0	0
Crossroads Pipeline Co.	0	0	0	0	0	0
Great Lakes Gas Transmission, L.P.	0	59,888	0	175,502	0	0
Michigan Gas Storage Co.	0	0	0	0	0	0
Midwestern Gas Transmission Co.	0	0	0	0	0	0
Natural Gas Pipeline Co. of America	0	0	0	0	0	0
Panhandle Eastern Pipe Line Co.	0	10,450	32,069	50,093	249,647	0
Trunkline Gas Co.	0	99,814	27,303	0	10,502	0
Viking Gas Transmission Co.	41,600	0	0	0	0	0
<b>Total Midwest</b>	<b>41,600</b>	<b>276,404</b>	<b>267,272</b>	<b>225,595</b>	<b>260,149</b>	<b>0</b>
<b>Northeast</b>						
Algonquin Gas Transmission Co.	585,134	37,455	29,758	95,455	62,000	165,000
Carnegie Interstate Pipeline Co.	0	0	0	0	0	0
CNG Transmission Corp.	130,500	98,233	17,200	26,200	30,000	302,043
Columbia Gas Transmission Corp.	198,279	0	113,790	0	0	2,636
Equitrans, L.P.	0	0	0	0	0	0
Granite State Gas Transmission, Inc.	7,120	0	0	0	0	0
Iroquois Gas Transmission System, L.P.	404,739	61,800	112,270	0	26,011	0
Kentucky West Virginia Gas Co.	0	0	0	0	0	0
National Fuel Gas Supply Corp.	0	16,837	0	0	0	0
NORA Transmission Co.	0	0	0	0	0	0
Tennessee Gas Pipeline Co.	280,634	100,421	61,500	10,868	0	20,500
Texas Eastern Transmission Corp.	1,169,520	124,036	98,181	132,905	233,712	125,475
Transcontinental Gas Pipe Line Corp.	443,581	171,982	65,226	196,178	853	189,795
<b>Total Northeast</b>	<b>3,219,507</b>	<b>610,764</b>	<b>497,925</b>	<b>461,606</b>	<b>352,576</b>	<b>805,449</b>
<b>Southeast</b>						
Chandeleur Pipe Line Co.	0	0	0	0	0	0
Columbia Gulf Transmission Co.	0	0	0	0	0	0
East Tennessee Natural Gas Co.	51,113	15,079	0	17,145	0	0
Florida Gas Transmission Co.	797	0	0	425,802	66,108	26,900
KO Transmission Co.	0	0	0	0	0	0
Midcoast Interstate Transmission Inc. (aka Ala-Tenn)	2,500	0	0	0	0	1,758
Mobile Bay Pipeline Co.	0	0	0	0	0	0
South Georgia Natural Gas Co.	0	0	0	0	0	0
Southern Natural Gas Co.	20,600	0	0	0	0	0
Texas Gas Transmission Corp.	0	0	0	0	0	0
<b>Total Southeast</b>	<b>75,010</b>	<b>15,079</b>	<b>0</b>	<b>442,947</b>	<b>66,108</b>	<b>28,658</b>
<b>Southwest</b>						
Black Marlin Pipeline Co.	0	0	0	0	0	0
High Island Offshore System	0	0	0	0	0	0
Koch Gateway Pipeline Co.	0	74,000	0	0	0	0
Mid Louisiana Gas Co.	0	0	0	0	0	0
Noram Gas Transmission Co.	14,500	0	0	0	0	0
Oktex Pipeline Co.	0	0	0	0	0	0
Ozark Gas Transmission System	0	0	0	0	0	0
Sabine Pipe Line Co.	0	0	0	0	0	0
Sea Robin Pipeline Co.	0	0	0	0	0	0
Stingray Pipeline Co.	0	0	0	0	0	0
<b>Total Southwest</b>	<b>14,500</b>	<b>74,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>West</b>						
El Paso Natural Gas Co.	0	0	0	0	0	0
Kern River Gas Transmission Co.	0	10,300	0	0	0	0
Mojave Pipeline Co.	0	0	0	0	0	0
Northwest Pipeline Corp.	250,467	259,044	77,595	206,123	46,112	7,000
Pacific Gas Transmission Co.	0	7,158	0	234,795	44,700	0
Pacific Interstate Offshore Co.	0	0	0	0	0	0
Paiute Pipeline Co.	0	0	0	0	0	0
Riverside Pipeline Co., L.P.	0	0	0	0	0	0
Transwestern Pipeline Co.	0	0	0	0	0	0
Tuscarora Gas Transmission Co.	0	0	0	106,100	0	50,200
<b>Total West</b>	<b>250,467</b>	<b>276,502</b>	<b>77,595</b>	<b>547,018</b>	<b>90,812</b>	<b>57,200</b>
<b>Total United States</b>	<b>3,732,299</b>	<b>2,167,455</b>	<b>842,792</b>	<b>1,706,015</b>	<b>791,344</b>	<b>907,441</b>

See note at end of table.

**Table D11. Expiration of Firm Transportation Capacity Under Contract as of July 1, 1998 (Continued)**  
(Million Btu per Day)

Pipeline Company	Total Capacity Expiring 2018	Total Capacity Expiring 2019	Total Capacity Expiring 2020	Total Capacity Expiring 2021	Total Capacity Expiring 20022	Total Capacity Expiring 2023
<b>Central</b>						
Canyon Creek Compression Co.	0	0	0	0	0	0
Colorado Interstate Gas Co.	0	0	0	0	0	0
K N Interstate Gas Transmission Co.	0	0	0	0	0	0
MIGC, Inc.	0	0	0	0	0	0
Mississippi River Transmission Corp.	0	0	0	0	0	0
Northern Border Pipeline Co.	0	0	0	0	0	0
Questar Pipeline Co.	0	0	0	0	0	0
Trailblazer Pipeline Co.	21,200	0	0	0	0	0
Westgas Interstate Inc.	0	0	0	0	0	0
Williams Natural Gas Co.	10,000	0	0	0	0	0
Williston Basin Interstate Pipeline Co.	0	0	0	0	0	0
Wyoming Interstate Co., Ltd.	0	0	41,214	0	0	0
<b>Total Central</b>	<b>31,200</b>	<b>0</b>	<b>41,214</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Midwest</b>						
ANR Pipeline Co.	0	0	0	0	0	0
Crossroads Pipeline Co.	0	0	0	0	0	0
Great Lakes Gas Transmission, L.P.	0	0	0	0	0	0
Michigan Gas Storage Co.	0	0	0	0	0	210,000
Midwestern Gas Transmission Co.	0	0	0	0	0	0
Natural Gas Pipeline Co. of America	0	0	0	0	0	0
Panhandle Eastern Pipe Line Co.	0	0	0	0	0	0
Trunkline Gas Co.	0	0	0	0	0	0
Viking Gas Transmission Co.	0	0	0	0	0	0
<b>Total Midwest</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>210,000</b>
<b>Northeast</b>						
Algonquin Gas Transmission Co.	0	0	0	0	0	0
Carnegie Interstate Pipeline Co.	0	0	0	0	0	0
CNG Transmission Corp.	0	0	0	0	0	0
Columbia Gas Transmission Corp.	0	0	0	24,240	0	0
Equitrans, L.P.	0	0	0	0	0	0
Granite State Gas Transmission, Inc.	0	0	0	0	0	0
Iroquois Gas Transmission System, L.P.	92,700	0	0	0	0	0
Kentucky West Virginia Gas Co.	0	0	0	0	0	0
National Fuel Gas Supply Corp.	0	0	0	0	0	0
NORA Transmission Co.	0	0	0	0	0	0
Tennessee Gas Pipeline Co.	0	0	2,937	0	0	0
Texas Eastern Transmission Corp.	0	0	0	15,000	0	0
Transcontinental Gas Pipe Line Corp.	0	0	0	0	0	3,997
<b>Total Northeast</b>	<b>92,700</b>	<b>0</b>	<b>2,937</b>	<b>39,240</b>	<b>0</b>	<b>3,997</b>
<b>Southeast</b>						
Chandeleur Pipe Line Co.	0	0	0	0	0	0
Columbia Gulf Transmission Co.	0	0	0	0	0	0
East Tennessee Natural Gas Co.	0	0	2,575	0	0	0
Florida Gas Transmission Co.	0	0	3,124	0	0	0
KO Transmission Co.	0	0	0	0	0	0
Midcoast Interstate Transmission Inc. (aka Ala-Tenn)	0	0	0	0	0	0
Mobile Bay Pipeline Co.	0	0	0	0	0	0
South Georgia Natural Gas Co.	0	0	0	0	0	0
Southern Natural Gas Co.	0	0	0	0	0	2,204
Texas Gas Transmission Corp.	0	0	0	0	0	0
<b>Total Southeast</b>	<b>0</b>	<b>0</b>	<b>5,699</b>	<b>0</b>	<b>0</b>	<b>2,204</b>
<b>Southwest</b>						
Black Marlin Pipeline Co.	0	0	0	0	0	0
High Island Offshore System	0	0	0	0	0	0
Koch Gateway Pipeline Co.	1,250	0	0	0	0	0
Mid Louisiana Gas Co.	0	0	0	0	0	0
Noram Gas Transmission Co.	0	0	0	0	0	0
Oktex Pipeline Co.	0	0	0	0	0	0
Ozark Gas Transmission System	0	0	0	0	0	0
Sabine Pipe Line Co.	0	0	0	0	0	0
Sea Robin Pipeline Co.	0	0	0	0	0	0
Stingray Pipeline Co.	0	0	0	0	0	0
<b>Total Southwest</b>	<b>1,250</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>West</b>						
El Paso Natural Gas Co.	0	0	0	0	0	0
Kern River Gas Transmission Co.	0	0	0	0	0	0
Mojave Pipeline Co.	0	0	0	0	0	0
Northwest Pipeline Corp.	0	0	0	0	0	0
Pacific Gas Transmission Co.	0	0	0	0	0	1,146,029
Pacific Interstate Offshore Co.	0	0	0	0	0	0
Paiute Pipeline Co.	0	0	0	0	0	0
Riverside Pipeline Co., L.P.	0	0	0	0	0	0
Transwestern Pipeline Co.	0	0	0	0	0	0
Tuscarora Gas Transmission Co.	1,550	0	0	0	0	0
<b>Total West</b>	<b>1,550</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,146,029</b>
<b>Total United States</b>	<b>126,700</b>	<b>0</b>	<b>49,850</b>	<b>39,240</b>	<b>0</b>	<b>1,362,230</b>

See note at end of table.

**Table D11. Expiration of Firm Transportation Capacity Under Contract as of July 1, 1998 (Continued)**  
(Million Btu per Day)

Pipeline Company	Total Capacity Expiring 2024	Total Capacity Expiring 2025 <sup>b</sup>
<b>Central</b>		
Canyon Creek Compression Co.	0	0
Colorado Interstate Gas Co.	0	162,180
K N Interstate Gas Transmission Co.	0	0
MIGC, Inc.	0	0
Mississippi River Transmission Corp.	0	0
Northern Border Pipeline Co.	0	0
Questar Pipeline Co.	0	0
Trailblazer Pipeline Co.	0	0
Westgas Interstate Inc.	0	0
Williams Natural Gas Co.	0	0
Williston Basin Interstate Pipeline Co.	0	0
Wyoming Interstate Co., Ltd.	0	0
<b>Total Central</b>	<b>0</b>	<b>162,180</b>
<b>Midwest</b>		
ANR Pipeline Co.	0	21,000
Crossroads Pipeline Co.	0	0
Great Lakes Gas Transmission, L.P.	0	0
Michigan Gas Storage Co.	0	0
Midwestern Gas Transmission Co.	0	0
Natural Gas Pipeline Co. of America	0	0
Panhandle Eastern Pipe Line Co.	0	0
Trunkline Gas Co.	0	0
Viking Gas Transmission Co.	0	0
<b>Total Midwest</b>	<b>0</b>	<b>21,000</b>
<b>Northeast</b>		
Algonquin Gas Transmission Co.	0	0
Carnegie Interstate Pipeline Co.	0	0
CNG Transmission Corp.	0	0
Columbia Gas Transmission Corp.	0	0
Equitrans, L.P.	0	0
Granite State Gas Transmission, Inc.	0	0
Iroquois Gas Transmission System, L.P.	0	0
Kentucky West Virginia Gas Co.	0	0
National Fuel Gas Supply Corp.	0	0
NORA Transmission Co.	0	0
Tennessee Gas Pipeline Co.	0	4
Texas Eastern Transmission Corp.	0	0
Transcontinental Gas Pipe Line Corp..	0	0
<b>Total Northeast</b>	<b>0</b>	<b>4</b>
<b>Southeast</b>		
Chandeleur Pipe Line Co.	0	0
Columbia Gulf Transmission Co.	0	0
East Tennessee Natural Gas Co.	0	0
Florida Gas Transmission Co.	0	0
KO Transmission Co.	0	0
Midcoast Interstate Transmission Inc. (aka Ala-Tenn)	0	0
Mobile Bay Pipeline Co.	0	0
South Georgia Natural Gas Co.	0	0
Southern Natural Gas Co.	0	0
Texas Gas Transmission Corp.	0	0
<b>Total Southeast</b>	<b>0</b>	<b>0</b>
<b>Southwest</b>		
Black Marlin Pipeline Co.	0	0
High Island Offshore System	0	0
Koch Gateway Pipeline Co.	0	0
Mid Louisiana Gas Co.	0	0
Noram Gas Transmission Co.	0	0
Oktex Pipeline Co.	0	0
Ozark Gas Transmission System	0	0
Sabine Pipe Line Co.	0	0
Sea Robin Pipeline Co.	0	20,600
Stingray Pipeline Co.	0	0
<b>Total Southwest</b>	<b>0</b>	<b>20,600</b>
<b>West</b>		
El Paso Natural Gas Co.	0	0
Kern River Gas Transmission Co.	0	0
Mojave Pipeline Co.	0	0
Northwest Pipeline Corp.	0	75,124
Pacific Gas Transmission Co.	0	84,900
Pacific Interstate Offshore Co.	0	0
Paiute Pipeline Co.	0	0
Riverside Pipeline Co., L.P.	0	0
Transwestern Pipeline Co.	0	0
Tuscarora Gas Transmission Co.	0	0
<b>Total West</b>	<b>0</b>	<b>160,024</b>
<b>Total United States</b>	<b>0</b>	<b>363,808</b>

<sup>a</sup>Data are for the last 6 months of 1998.

<sup>b</sup>Expirations shown in 2025 in the Southwest actually occur in years beyond 2025.

Notes: Long-term contracts are longer than 366 days. Short-term contracts are 366 days or less.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filing for July 1, 1998, FERC Bulletin Board (August 14, 1998).

**Table D12. Firm Transportation Capacity by Region and Shipper Type, April 1, 1996 - July 1, 1998**  
(Million Btu per Day)

Region / Pipeline Company		Contract Length	April 1, 1996	July 1, 1996	October 1, 1996	January 1, 1997	April 1, 1997	July 1, 1997	October 1, 1997	January 1, 1998	April 1, 1998	July 1, 1998
<b>Central</b>												
Electric Utility	LT		21,097	21,095	21,094	94,031	94,034	94,037	124,291	124,291	142,927	144,127
	ST		0	0	0	0	403	403	403	807	0	0
	Total		21,097	21,095	21,094	94,031	94,437	94,440	124,694	125,098	142,927	144,127
Industrial	LT		208,451	158,839	228,240	154,437	140,651	136,154	172,376	237,043	242,279	234,921
	ST		28,618	83,980	25,950	112,435	113,616	118,100	94,909	47,563	49,946	53,901
	Total		237,069	242,819	254,190	266,872	254,267	254,254	267,285	284,606	292,225	288,822
LDC	LT		4,863,792	4,408,077	5,192,579	4,774,987	4,780,396	4,941,184	5,182,241	5,454,140	5,502,001	5,422,955
	ST		831,770	741,309	311,068	795,840	766,411	600,778	417,296	514,221	337,679	338,750
	Total		5,695,562	5,149,386	5,503,647	5,570,827	5,546,807	5,541,962	5,599,537	5,968,361	5,839,680	5,761,705
Marketer	LT		2,151,824	2,196,604	2,515,143	2,475,651	2,592,963	2,578,111	3,209,757	3,485,897	3,499,413	3,449,625
	ST		777,385	762,581	459,303	694,641	692,630	673,472	578,941	608,645	444,255	520,460
	Total		2,929,209	2,959,185	2,974,446	3,170,292	3,285,593	3,251,583	3,788,698	4,094,542	3,943,668	3,970,085
Other	LT		1,497,949	1,495,405	1,534,502	1,543,716	1,523,247	1,474,765	1,623,236	1,607,677	1,591,455	1,586,955
	ST		127,353	126,022	210,485	103,470	58,419	54,027	18,642	59,021	34,332	20,999
	Total		1,625,302	1,621,427	1,744,987	1,647,186	1,581,666	1,528,792	1,641,878	1,666,698	1,625,787	1,607,954
Pipeline Company	LT		750,177	994,920	1,004,833	1,004,987	1,004,406	1,004,895	859,940	861,818	829,441	828,890
	ST		0	11,650	0	0	0	0	0	0	0	0
	Total		750,177	1,006,570	1,004,833	1,004,987	1,004,406	1,004,895	859,940	861,818	829,441	828,890
<b>Total Central</b>	LT		9,493,290	9,274,940	10,496,391	10,047,809	10,135,697	10,229,146	11,171,841	11,770,866	11,807,516	11,667,473
	ST		1,765,126	1,725,542	1,006,806	1,706,386	1,631,479	1,446,780	1,110,191	1,230,257	866,212	934,110
	Total		11,258,416	11,000,482	11,503,197	11,754,195	11,767,176	11,675,926	12,282,032	13,001,123	12,673,728	12,601,583
<b>Midwest</b>												
Electric Utility	LT		214,848	214,848	214,848	321,842	254,033	294,033	244,033	293,659	236,960	261,913
	ST		0	0	0	16,759	16,759	16,759	16,759	34,533	14,191	4,191
	Total		214,848	214,848	214,848	338,601	270,792	310,792	260,792	328,192	251,151	266,104
Industrial	LT		1,595,942	1,481,619	1,471,504	1,536,273	1,483,697	1,506,830	1,560,063	1,582,130	1,526,085	1,511,640
	ST		198,041	205,363	181,640	159,255	129,780	128,172	132,068	128,384	122,800	156,224
	Total		1,793,983	1,686,982	1,653,144	1,695,528	1,613,477	1,635,002	1,692,131	1,710,514	1,648,885	1,667,864
LDC	LT		9,991,942	9,681,436	10,080,499	12,101,837	9,971,034	9,782,043	10,162,705	11,969,289	9,802,748	9,616,003
	ST		91,534	415,631	266,258	937,988	781,586	688,786	695,870	809,776	433,451	393,443
	Total		10,083,476	10,097,067	10,346,757	13,039,825	10,752,620	10,470,829	10,858,575	12,779,065	10,236,199	10,009,446
Marketer	LT		3,157,117	3,797,913	3,862,761	4,167,639	3,986,517	3,975,960	4,052,580	4,645,204	4,529,869	4,282,963
	ST		1,965,365	1,993,142	2,200,965	2,499,252	1,901,102	1,731,434	1,733,961	1,569,598	607,649	1,028,999
	Total		5,122,482	5,791,055	6,063,726	6,666,891	5,887,619	5,707,394	5,786,541	6,214,802	5,137,518	5,311,962
Other	LT		427,760	421,879	445,879	526,879	647,027	718,970	667,049	602,051	605,767	636,098
	ST		57,150	101,360	91,990	184,750	25,961	28,818	35,629	242,575	43,625	47,800
	Total		484,910	523,239	537,869	711,629	672,988	747,788	702,678	844,626	649,392	683,898
Pipeline Company	LT		2,038,528	2,614,090	2,613,416	2,613,415	2,612,015	2,538,948	2,851,965	2,397,989	2,547,989	2,547,989
	ST		500,000	1,011,461	1,011,460	805,461	309,001	313,018	1	870,897	313,017	313,017
	Total		2,538,528	3,625,551	3,624,876	3,418,876	2,921,016	2,851,966	2,851,966	3,268,886	2,861,006	2,861,006
<b>Total Midwest</b>	LT		17,426,137	18,211,785	18,688,907	21,267,885	18,954,323	18,816,784	19,538,395	21,490,322	19,249,418	18,856,606
	ST		2,812,090	3,726,957	3,752,313	4,603,465	3,164,189	2,906,987	2,614,288	3,655,763	1,534,733	1,943,674
	Total		20,238,227	21,938,742	22,441,220	25,871,350	22,118,512	21,723,771	22,152,683	25,146,085	20,784,151	20,800,280
<b>Northeast</b>												
Electric Utility	LT		1,457,449	1,525,479	1,546,259	1,615,492	1,543,740	1,676,240	1,676,975	1,811,973	1,819,776	1,819,776
	ST		8,951	0	0	10,000	0	0	0	30,750	25,000	25,000
	Total		1,466,400	1,525,479	1,546,259	1,625,492	1,543,740	1,676,240	1,676,975	1,842,723	1,844,776	1,844,776
Industrial	LT		1,573,425	1,571,917	1,622,448	1,665,992	1,651,092	1,664,518	1,609,381	1,646,075	1,567,089	1,606,626
	ST		122,946	105,631	43,674	138,100	106,617	81,527	81,127	189,014	151,278	119,546
	Total		1,696,371	1,677,548	1,666,122	1,804,092	1,757,709	1,746,045	1,690,508	1,835,089	1,718,367	1,726,172
LDC	LT		22,250,880	22,383,013	24,535,257	24,916,952	24,666,800	22,443,457	24,280,333	25,318,279	23,101,279	22,725,835
	ST		428,659	389,183	279,998	686,258	582,482	600,200	579,938	748,792	701,317	734,030
	Total		22,679,539	22,772,196	24,815,255	25,603,210	25,249,282	23,043,657	24,860,271	26,067,071	23,802,596	23,459,865
Marketer	LT		1,799,256	1,844,793	1,917,060	2,084,088	2,091,012	2,091,580	2,070,155	2,194,557	2,216,603	2,283,276
	ST		365,283	245,582	201,565	535,994	352,741	322,910	372,693	614,588	365,358	509,982
	Total		2,164,539	2,090,375	2,118,625	2,620,082	2,443,753	2,414,490	2,442,848	2,809,145	2,581,961	2,793,258
Other	LT		52,085	57,509	201,719	90,876	57,614	57,543	85,738	87,642	95,354	99,101
	ST		189,071	187,446	37,571	191,815	99,084	99,094	104,259	105,318	100,844	148,476
	Total		241,156	244,955	239,290	282,691	156,698	156,637	189,997	192,960	196,198	247,577
Pipeline Company	LT		1,604,982	1,761,869	1,991,591	1,578,290	1,572,792	1,572,792	1,577,240	1,536,705	1,518,830	1,518,830
	ST		306,000	393,089	19,189	408,040	398,040	398,040	398,040	408,040	398,040	398,040
	Total		1,910,982	2,154,958	2,010,780	1,986,330	1,970,832	1,970,832	1,975,280	1,944,745	1,916,870	1,916,870
<b>Total Northeast</b>	LT		28,738,077	29,144,580	31,814,334	31,951,690	31,583,050	29,506,130	31,299,822	32,595,231	30,318,931	30,053,444
	ST		1,420,910	1,320,931	581,997	1,970,207	1,538,964	1,501,771	1,536,057	2,096,502	1,741,837	1,935,074
	Total		30,158,987	30,465,511	32,396,331	33,921,897	33,122,014	31,007,901	32,835,879	34,691,733	32,060,768	31,988,518

**Table D12. Firm Transportation Capacity by Region and Shipper Type, April 1, 1996 - July 1, 1998**  
**(Continued)**  
(Million Btu per Day)

Region / Pipeline Company	Contract Length	April 1, 1996	July 1, 1996	October 1, 1996	January 1, 1997	April 1, 1997	July 1, 1997	October 1, 1997	January 1, 1998	April 1, 1998	July 1, 1998
<b>Southeast</b>											
Electric Utility	LT	685,724	872,330	718,362	660,717	680,430	837,007	769,365	725,720	758,626	948,648
	ST	10,215	0	5,037	2,142	2,142	2,142	2,142	17,142	17,142	2,142
	Total	695,939	872,330	723,399	662,859	682,572	839,149	771,507	742,862	775,768	950,790
Industrial	LT	412,312	408,364	456,988	489,800	492,043	472,979	444,206	501,355	522,573	534,005
	ST	66,086	74,261	55,770	58,950	49,860	24,860	24,060	22,845	22,845	22,845
	Total	478,398	482,625	512,758	548,750	541,903	497,839	468,266	524,200	545,418	556,850
LDC	LT	6,253,173	6,390,791	6,578,563	7,146,532	6,706,026	6,434,140	6,533,577	7,219,607	6,731,724	6,542,729
	ST	179,602	188,754	162,494	276,466	234,645	234,645	226,093	216,183	180,974	176,386
	Total	6,432,775	6,579,545	6,741,057	7,422,998	6,940,671	6,668,785	6,759,670	7,435,790	6,912,698	6,719,115
Marketer	LT	704,138	427,971	788,037	802,120	845,755	936,944	912,601	1,013,906	812,811	796,367
	ST	387,671	678,889	270,821	407,475	230,116	291,710	219,917	235,171	306,884	317,085
	Total	1,091,809	1,106,860	1,058,858	1,209,595	1,075,871	1,228,654	1,132,518	1,249,077	1,119,695	1,113,452
Other	LT	142,501	146,918	147,352	115,201	128,201	179,918	180,352	200,039	214,841	215,061
	ST	30,772	47,772	47,772	50,772	60,772	35,154	30,154	39,772	39,772	25,772
	Total	173,273	194,690	195,124	165,973	188,973	215,072	210,506	239,811	254,613	240,833
Pipeline Company	LT	656,114	664,214	325,905	313,823	313,690	313,690	313,690	302,260	302,252	267,252
	ST	102,850	105,936	0	0	0	0	0	0	0	0
	Total	758,964	770,150	325,905	313,823	313,690	313,690	313,690	302,260	302,252	267,252
<b>Total Southeast</b>	LT	8,853,962	8,910,588	9,015,207	9,528,193	9,166,145	9,174,678	9,153,791	9,962,887	9,342,827	9,304,062
	ST	777,196	1,095,612	541,894	795,805	577,535	588,511	502,366	531,113	567,617	544,230
	Total	9,631,158	10,006,200	9,557,101	10,323,998	9,743,680	9,763,189	9,656,157	10,494,000	9,910,444	9,848,292
<b>Southwest</b>											
Electric Utility	LT	36,997	24,676	54,355	122,477	54,355	26,922	54,117	122,477	52,239	39,167
	ST	0	0	0	0	0	0	0	0	0	0
	Total	36,997	24,676	54,355	122,477	54,355	26,922	54,117	122,477	52,239	39,167
Industrial	LT	292,734	306,784	322,175	314,512	331,897	359,286	359,490	358,327	362,459	327,554
	ST	100,572	183,884	92,254	123,536	89,027	113,097	58,177	57,930	63,197	141,156
	Total	393,306	490,668	414,429	438,048	420,924	472,383	417,667	416,257	425,656	468,710
LDC	LT	2,979,588	2,812,602	3,054,977	3,003,485	2,928,880	2,250,868	2,413,358	2,954,122	2,574,700	2,240,104
	ST	75,558	277,165	88,806	401,051	297,861	303,778	271,704	275,107	70,098	132,631
	Total	3,055,146	3,089,767	3,143,783	3,404,536	3,226,741	2,554,646	2,685,062	3,229,229	2,644,798	2,372,735
Marketer	LT	1,098,364	1,155,130	1,175,806	1,180,054	1,011,551	1,017,069	936,529	1,067,611	1,365,997	1,309,080
	ST	969,947	693,341	549,292	712,306	811,340	742,286	824,144	956,466	460,470	573,652
	Total	2,068,311	1,848,471	1,725,098	1,892,360	1,822,891	1,759,355	1,760,673	2,024,077	1,826,467	1,882,732
Other	LT	193,593	241,636	188,375	246,870	178,879	174,010	168,217	279,426	297,867	289,022
	ST	24,400	410,200	440,790	516,900	455,900	450,500	476,280	439,400	351,346	401,068
	Total	217,993	651,836	629,165	763,770	634,779	624,510	644,497	718,826	649,213	690,090
Pipeline Company	LT	579,345	538,065	538,065	536,565	532,893	532,893	532,893	525,346	525,346	525,346
	ST	4,690	4,831	4,831	4,831	4,831	4,831	4,831	4,831	0	0
	Total	584,035	542,896	542,896	541,396	537,724	537,724	537,724	530,177	525,346	525,346
<b>Total Southwest</b>	LT	5,180,621	5,078,893	5,333,753	5,403,963	5,038,455	4,361,048	4,464,604	5,307,309	5,178,608	4,730,273
	ST	1,175,167	1,569,421	1,175,973	1,758,624	1,658,959	1,614,492	1,635,136	1,733,734	945,111	1,248,507
	Total	6,355,788	6,648,314	6,509,726	7,162,587	6,697,414	5,975,540	6,099,740	7,041,043	6,123,719	5,978,780
<b>West</b>											
Electric Utility	LT	1,206,312	1,208,877	1,208,877	1,252,107	1,218,877	1,032,168	1,045,168	1,058,460	1,013,730	1,013,730
	ST	50,000	0	1,298	0	47,761	75,386	70,000	9,038	24,284	12,920
	Total	1,256,312	1,208,877	1,210,175	1,252,107	1,266,638	1,107,554	1,115,168	1,067,498	1,038,014	1,026,650
Industrial	LT	251,048	251,828	247,794	263,495	265,803	259,161	268,361	261,076	265,765	317,757
	ST	9,600	9,600	9,600	13,100	75,349	66,204	57,204	66,404	59,800	9,800
	Total	260,648	261,428	257,394	276,595	341,152	325,365	325,565	327,480	325,565	327,557
LDC	LT	6,010,581	5,975,901	6,326,751	5,733,274	5,602,121	5,528,220	5,571,217	4,659,429	4,593,936	4,540,379
	ST	9,100	95,360	95,560	10,353	138,696	97,386	9,000	51,670	37,944	225,591
	Total	6,019,681	6,071,261	6,422,311	5,743,627	5,740,817	5,625,606	5,580,217	4,711,099	4,631,880	4,765,970
Marketer	LT	4,763,805	4,777,964	4,682,734	4,962,870	4,927,429	5,449,210	5,399,188	6,692,410	6,742,015	6,797,781
	ST	1,027,666	1,091,854	1,704,315	901,737	1,029,416	695,060	676,174	788,782	894,211	999,065
	Total	5,791,471	5,869,818	6,387,049	5,864,607	5,956,845	6,144,270	6,075,362	7,481,192	7,636,226	7,796,846
Other	LT	503,336	607,071	609,105	661,628	631,114	522,203	650,953	642,903	640,903	645,000
	ST	108,600	123,600	133,360	164,320	106,552	148,400	138,200	203,848	202,290	266,030
	Total	611,936	730,671	742,465	825,948	737,666	670,603	789,153	846,751	843,193	911,030
Pipeline Company	LT	488,267	488,267	488,267	638,267	488,267	488,267	488,267	638,267	488,267	488,267
	ST	0	25,000	261,810	241,750	0	15,000	0	0	0	10,000
	Total	488,267	513,267	750,077	880,017	488,267	503,267	488,267	638,267	488,267	498,267
<b>Total West</b>	LT	13,223,349	13,309,908	13,563,528	13,511,641	13,133,611	13,279,229	13,423,154	13,952,545	13,744,616	13,802,914
	ST	1,204,966	1,345,414	2,205,943	1,331,260	1,397,774	1,097,436	950,578	1,119,742	1,218,529	1,523,406
	Total	14,428,315	14,655,322	15,769,471	14,842,901	14,531,385	14,376,665	14,373,732	15,072,287	14,963,145	15,326,320

**Table D12. Firm Transportation Capacity by Region and Shipper Type, April 1, 1996 - July 1, 1998**  
**(Continued)**  
(Million Btu per Day)

Region / Pipeline Company	Contract Length	April 1, 1996	July 1, 1996	October 1, 1996	January 1, 1997	April 1, 1997	July 1, 1997	October 1, 1997	January 1, 1998	April 1, 1998	July 1, 1998
<b>Total United States</b>											
Electric Utility	LT	3,622,427	3,867,305	3,763,795	4,066,666	3,845,469	3,960,407	3,913,949	4,136,580	4,024,258	4,227,361
	ST	69,166	0	6,335	28,901	67,065	94,690	89,304	92,270	80,617	44,253
	Total	3,691,593	3,867,305	3,770,130	4,095,567	3,912,534	4,055,097	4,003,253	4,228,850	4,104,875	4,271,614
Industrial	LT	4,333,912	4,179,351	4,349,149	4,424,509	4,365,183	4,398,928	4,413,877	4,586,006	4,486,250	4,532,503
	ST	525,863	662,719	408,888	605,376	564,249	531,960	447,545	512,140	469,866	503,472
	Total	4,859,775	4,842,070	4,758,037	5,029,885	4,929,432	4,930,888	4,861,422	5,098,146	4,956,116	5,035,975
LDC	LT	52,349,956	51,651,820	55,768,626	57,677,067	54,655,257	51,379,912	54,143,431	57,574,866	52,306,388	51,088,005
	ST	1,616,223	2,107,402	1,204,184	3,107,956	2,801,681	2,525,573	2,199,901	2,615,749	1,761,463	2,000,831
	Total	53,966,179	53,759,222	56,972,810	60,785,023	57,456,938	53,905,485	56,343,332	60,190,615	54,067,851	53,088,836
Marketer	LT	13,674,504	14,200,375	14,941,541	15,672,422	15,455,227	16,048,874	16,580,810	19,099,585	19,166,708	18,919,092
	ST	5,493,317	5,465,389	5,386,261	5,751,405	5,017,345	4,456,872	4,405,830	4,773,250	3,078,827	3,949,243
	Total	19,167,821	19,665,764	20,327,802	21,423,827	20,472,572	20,505,746	20,986,640	23,872,835	22,245,535	22,868,335
Other	LT	2,817,224	2,970,418	3,126,932	3,185,170	3,166,082	3,127,409	3,375,545	3,419,738	3,446,187	3,471,237
	ST	537,346	996,400	961,968	1,212,027	806,688	815,993	803,164	1,089,934	772,209	910,145
	Total	3,354,570	3,966,818	4,088,900	4,397,197	3,972,770	3,943,402	4,178,709	4,509,672	4,218,396	4,381,382
Pipeline Company	LT	6,117,413	7,061,425	6,962,077	6,685,347	6,524,063	6,451,485	6,623,995	6,262,385	6,212,125	6,176,574
	ST	913,540	1,551,967	1,297,290	1,460,082	711,872	730,889	402,872	1,283,768	711,057	721,057
	Total	7,030,953	8,613,392	8,259,367	8,145,429	7,235,935	7,182,374	7,026,867	7,546,153	6,923,182	6,897,631
<b>All Shippers</b>	LT	82,915,436	83,930,694	88,912,120	91,711,181	88,011,281	85,367,015	89,051,607	95,079,160	89,641,916	88,414,772
	ST	9,155,455	10,783,877	9,264,926	12,165,747	9,968,900	9,155,977	8,348,616	10,367,111	6,874,039	8,129,001
	Total	92,070,891	94,714,571	98,177,046	103,876,928	97,980,181	94,522,992	97,400,223	105,446,271	96,515,955	96,543,773

LT = Long term (longer than 366 days); ST = Short term (366 days or less); LDC = local distribution company.

Note: Data are for 64 interstate pipeline companies.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filings for April 1, 1996 through July 1, 1998, FERC Bulletin Board (August 14, 1998).



**Table D13. Firm Capacity Under Expired and New Contracts During July 1, 1997 - July 1, 1998,  
by Shipper Type and Contract Length**  
(Million Btu per Day)

Shipper/Length/Quarter Ending	Expired <sup>1</sup> Capacity	New <sup>2</sup> Capacity	Total Capacity Under Contract
<b>Electric Utility</b>			
Long-Term			
October 1, 1997	124,213	77,755	3,913,949
January 1, 1998	24,526	247,157	4,136,580
April 1, 1998	177,969	65,647	4,024,258
July 1, 1998	0	203,103	4,227,361
Total	326,708	593,662	
Short-Term			
October 1, 1997	7,528	2,142	89,304
January 1, 1998	87,162	90,128	92,270
April 1, 1998	39,321	27,668	80,617
July 1, 1998	36,364	0	44,253
Total	170,375	119,938	
<b>Industrial</b>			
Long-Term			
October 1, 1997	58,108	73,057	4,413,877
January 1, 1998	167,174	339,303	4,586,006
April 1, 1998	145,699	45,943	4,486,250
July 1, 1998	77,427	123,680	4,532,503
Total	448,408	581,983	
Short-Term			
October 1, 1997	231,717	147,302	447,545
January 1, 1998	273,707	338,302	512,140
April 1, 1998	292,462	250,188	469,866
July 1, 1998	284,153	317,759	503,472
Total	1,082,039	1,053,551	
<b>Local Distribution Company</b>			
Long-Term			
October 1, 1997	220,318	2,983,837	54,143,431
January 1, 1998	1,501,956	4,933,391	57,574,866
April 1, 1998	5,776,537	508,059	52,306,388
July 1, 1998	1,441,773	223,390	51,088,005
Total	8,940,584	8,648,677	
Short-Term			
October 1, 1997	876,923	551,251	2,199,901
January 1, 1998	1,602,585	2,018,433	2,615,749
April 1, 1998	1,530,353	676,067	1,761,463
July 1, 1998	600,525	839,893	2,000,831
Total	4,610,386	4,085,644	
<b>Marketer</b>			
Long-Term			
October 1, 1997	289,570	821,506	16,580,810
January 1, 1998	427,243	2,946,018	19,099,585
April 1, 1998	1,108,259	1,175,382	19,166,708
July 1, 1998	528,115	280,499	18,919,092
Total	2,353,187	5,223,405	
Short-Term			
October 1, 1997	1,232,495	1,181,453	4,405,830
January 1, 1998	2,833,575	3,200,995	4,773,250
April 1, 1998	3,449,191	1,754,768	3,078,827
July 1, 1998	829,425	1,699,841	3,949,243
Total	8,344,686	7,837,057	

**Table D13. Firm Capacity Under Expired and New Contracts During July 1, 1997 - July 1, 1998,  
by Shipper Type and Contract Length (Continued)**  
(Million Btu per Day)

Shipper/Length/Quarter Ending	Expired <sup>1</sup> Capacity	New <sup>2</sup> Capacity	Total Capacity Under Contract
<b>Other</b>			
Long-Term			
October 1, 1997	14,894	263,030	3,375,545
January 1, 1998	158,587	202,780	3,419,738
April 1, 1998	11,550	37,999	3,446,187
July 1, 1998	40,688	65,738	3,471,237
Total	225,719	569,547	
Short-Term			
October 1, 1997	179,292	166,463	803,164
January 1, 1998	268,234	555,004	1,089,934
April 1, 1998	806,354	488,629	772,209
July 1, 1998	231,744	369,680	910,145
Total	1,485,624	1,579,776	
<b>Pipeline Company</b>			
Long-Term			
October 1, 1997	10,661	183,171	6,623,995
January 1, 1998	430,597	68,987	6,262,385
April 1, 1998	50,260	0	6,212,125
July 1, 1998	41,030	5,479	6,176,574
Total	532,548	257,637	
Short-Term			
October 1, 1997	472,336	144,319	402,872
January 1, 1998	15,493	896,389	1,283,768
April 1, 1998	889,425	316,714	711,057
July 1, 1998	547,549	557,549	721,057
Total	1,924,803	1,914,971	
<b>All Shippers</b>			
Long-Term			
October 1, 1997	717,764	4,402,356	89,051,607
January 1, 1998	2,710,083	8,737,636	95,079,160
April 1, 1998	7,270,274	1,833,030	89,641,916
July 1, 1998	2,129,033	901,889	88,414,772
Total	12,827,154	15,874,911	
Short-Term			
October 1, 1997	3,000,291	2,192,930	8,348,616
January 1, 1998	5,080,756	7,099,251	10,367,111
April 1, 1998	7,007,106	3,514,034	6,874,039
July 1, 1998	2,529,760	3,784,722	8,129,001
Total	17,617,913	16,590,937	
Total Contracts			
October 1, 1997	3,718,055	6,595,286	97,400,223
January 1, 1998	7,790,839	15,836,887	105,446,271
April 1, 1998	14,277,380	5,347,064	96,515,955
July 1, 1998	4,658,793	4,686,611	96,543,773
Total	30,445,067	32,465,848	
Average Oct. 1, 1997 - July 1, 1998	7,611,267	8,116,462	98,976,556
Percent of Total	7.7	8.2	

<sup>1</sup>Expired contracts from previous quarterly filing. Includes downward capacity revisions.

<sup>2</sup>New contracts include upward capacity revisions.

Notes: Long-term contracts are longer than 366 days, short-term contracts are 366 days or less. The "Other" category includes producers, gatherers, processors, and storage operators as well as shippers that could not be classified. Data are for 64 interstate pipeline companies.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filings for July 1, 1997 through July 1, 1998, FERC Bulletin Board (August 14, 1998).

**Table D14. Regional Characteristics of Released Capacity Used to Estimate Turnback, November 1993 - March 1998**

Nonheating Season (April - October)												
Region	1994			1995			1996			1997		
	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall
Central	2.78	171	92	2.80	323	65	2.47	338	55	3.29	399	57
Midwest	6.20	325	88	5.69	472	82	8.66	589	73	6.92	472	72
Northeast	2.61	633	84	2.28	1,084	64	4.30	1,683	70	5.62	1,984	73
Southeast	2.64	247	79	1.45	469	67	3.57	526	67	3.63	686	68
Southwest	3.32	10	94	3.14	21	19	2.55	21	0	2.64	23	6
West	2.22	538	83	3.30	721	38	2.91	972	38	2.94	870	24
<b>Total</b>	<b>3.13</b>	<b>1,922</b>	<b>85</b>	<b>2.97</b>	<b>3,090</b>	<b>61</b>	<b>4.34</b>	<b>4,129</b>	<b>61</b>	<b>4.70</b>	<b>4,434</b>	<b>60</b>

Heating Season (November - March)															
Region	1993-94			1994-95			1995-96			1996-97			1997-98		
	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall
Central	3.31	42	--	2.94	142	71	2.60	203	64	2.99	246	58	3.80	288	51
Midwest	4.78	72	--	6.73	172	79	8.06	341	84	9.14	401	69	6.84	372	71
Northeast	4.30	197	--	3.48	524	76	5.79	750	69	7.25	1,091	76	7.23	1,303	72
Southeast	3.60	52	--	2.11	283	79	2.70	343	76	4.16	463	79	5.15	475	67
Southwest	2.16	5	--	5.74	6	91	2.70	16	3	2.50	16	4	2.85	17	9
West	4.61	164	--	1.50	350	51	2.97	625	37	3.01	541	31	3.14	723	27
<b>Total</b>	<b>4.30</b>	<b>532</b>	<b>--</b>	<b>3.08</b>	<b>1,477</b>	<b>71</b>	<b>4.59</b>	<b>2,278</b>	<b>63</b>	<b>5.77</b>	<b>2,758</b>	<b>65</b>	<b>5.61</b>	<b>3,177</b>	<b>59</b>
<b>Total for Heating Year</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>3.11</b>	<b>3,399</b>	<b>79</b>	<b>3.66</b>	<b>5,368</b>	<b>62</b>	<b>4.91</b>	<b>6,887</b>	<b>62</b>	<b>5.08</b>	<b>7,611</b>	<b>60</b>

\$/Mcf-Mo. = Dollars per thousand cubic feet per month. Bcf = Billion cubic feet. -- = Not applicable. Heating Year = April - March.

Note: These data are for the 27 interstate natural gas pipeline companies used to estimate capacity turnback. The company names are noted in Table D3.

Sources: Energy Information Administration, Office of Oil and Gas, derived from: **November 1993 - July 1994:** Pasha Publications, Inc. **July 1994 - March 1998:** Federal Energy Regulatory Commission, Electronic Data Interchange (EDI) data.

**Table D15. Regional Characteristics of Released Capacity for All Pipeline Companies, November 1993 - March 1998**

Nonheating Season (April - October)														
Region	1994			1995			1996			1997				
	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall		
Central	2.49	274	94	2.11	563	78	2.50	440	62	2.70	551	56		
Midwest	6.12	331	88	5.69	472	82	8.49	623	69	6.86	502	67		
Northeast	2.61	638	85	2.27	1,103	64	4.30	1,683	70	5.62	1,984	73		
Southeast	2.64	247	79	1.45	469	67	3.55	529	67	3.63	686	68		
Southwest	3.32	10	94	5.27	35	26	5.24	29	1	2.65	24	6		
West	2.21	541	83	3.26	731	38	2.87	984	38	2.89	885	24		
Total	3.07	2,041	85	2.85	3,372	63	4.31	4,289	61	4.53	4,632	60		

Heating Season (November - March)															
Region	1993-94			1994-95			1995-96			1996-97			1997-98		
	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall	Average Rate (\$/Mcf-Mo.)	Capacity Held (Bcf)	Percent Capacity Subject to Recall
Central	3.14	75	--	2.41	236	80	2.33	349	75	2.90	283	60	3.47	391	55
Midwest	4.78	72	--	6.73	172	79	7.83	389	79	9.02	419	66	6.81	390	68
Northeast	4.28	199	--	3.47	535	76	5.75	764	69	7.25	1,091	76	7.24	1,305	73
Southeast	3.60	52	--	2.11	283	79	2.69	344	76	4.16	463	79	5.13	477	67
Southwest	2.16	5	--	9.18	10	51	5.18	23	10	5.14	21	3	2.84	17	9
West	4.61	164	--	1.49	353	50	2.95	629	37	2.97	548	32	3.16	742	26
Total	4.21	567	--	3.02	1,589	72	4.46	2,499	64	5.73	2,825	64	5.51	3,322	58
Total for Heating Year --	--	--	--	3.05	3,630	79	3.54	5,872	63	4.87	7,113	62	4.97	7,954	59

\$/Mcf-Mo. = Dollars per thousand cubic feet per month. Bcf = Billion cubic feet. -- = Not applicable. Heating Year = April - March.

Note: These data are for all (43) interstate natural gas pipeline companies for which capacity release information was available and were used in Chapter 1. The companies are listed in Table D1.

Sources: Energy Information Administration, Office of Oil and Gas, derived from: **November 1993 - July 1994:** Pasha Publications, Inc. **July 1994 - March 1998:** Federal Energy Regulatory Commission, Electronic Data Interchange (EDI) data.

**Table D16. Expiration and Turnback of Capacity Under Contract as of July 1, 1998**

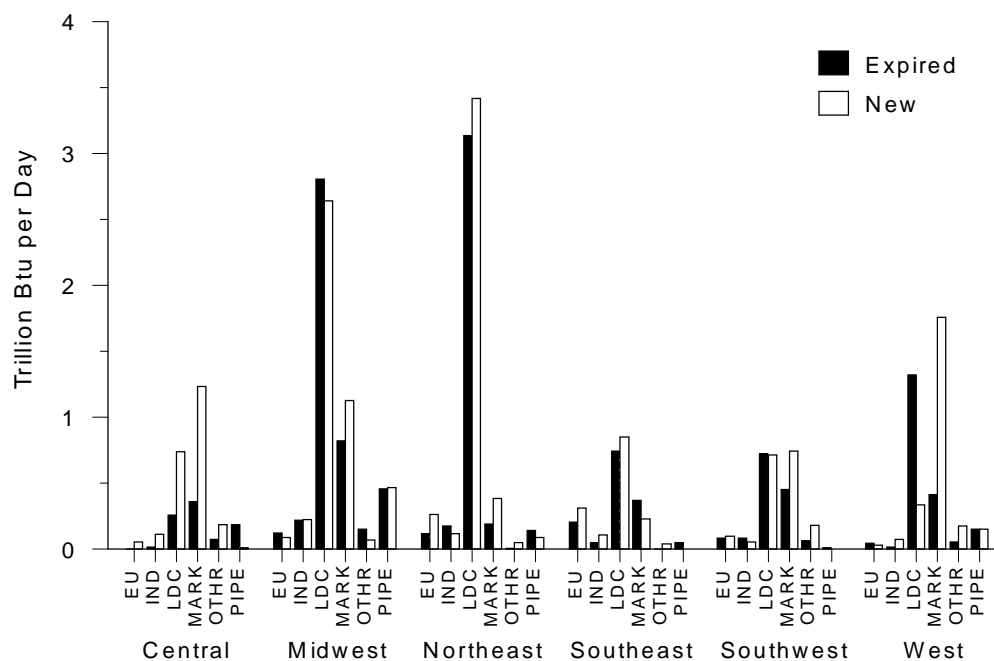
Year	Expiration of Firm Transportation Capacity			Estimated Turned Back Capacity (million Btu)	Cumulative Turned Back Capacity (million Btu)	Cumulative Turned Back Capacity as a Percent of Total Capacity	Cumulative Turned Back Capacity as a Percent of Long-Term Capacity
	Under Contract as of July 1, 1998		Total (million Btu)				
	Long-Term (million Btu)	Short-Term (million Btu)					
Total	87,044,183	8,129,001	95,173,184	17,765,394			
1998	4,313,526	5,540,465	9,853,991	761,917	761,917	0.8	0.9
1999	9,136,521	2,588,536	11,725,057	1,651,306	2,413,223	2.5	2.8
2000	11,517,498	0	11,517,498	2,126,620	4,539,843	4.8	5.2
2001	6,060,564	0	6,060,564	1,171,708	5,711,551	6.0	6.6
2002	6,938,695	0	6,938,695	1,169,205	6,880,757	7.2	7.9
2003	5,124,486	0	5,124,486	1,089,161	7,969,918	8.4	9.2
2004	8,193,511	0	8,193,511	1,926,771	9,896,688	10.4	11.4
2005	6,899,755	0	6,899,755	1,430,681	11,327,369	11.9	13.0
2006	3,986,975	0	3,986,975	960,979	12,288,349	12.9	14.1
2007	4,588,289	0	4,588,289	1,077,321	13,365,669	14.0	15.4
2008	2,680,689	0	2,680,689	586,576	13,952,245	14.7	16.0
2009	2,072,385	0	2,072,385	469,878	14,422,123	15.2	16.6
2010	1,492,441	0	1,492,441	335,389	14,757,513	15.5	17.0
2011	1,971,850	0	1,971,850	372,932	15,130,445	15.9	17.4
2012	3,725,179	0	3,725,179	838,558	15,969,003	16.8	18.3
2013	2,167,455	0	2,167,455	420,043	16,389,046	17.2	18.8
2014	842,792	0	842,792	164,935	16,553,981	17.4	19.0
2015	1,706,015	0	1,706,015	408,003	16,961,984	17.8	19.5
2016	783,288	0	783,288	158,562	17,120,546	18.0	19.7
2017	900,441	0	900,441	206,783	17,327,329	18.2	19.9
2018	126,700	0	126,700	27,067	17,354,397	18.2	19.9
2019	0	0	0	0	17,354,397	18.2	19.9
2020	49,850	0	49,850	10,048	17,364,444	18.2	19.9
2021	39,240	0	39,240	8,805	17,373,250	18.3	20.0
2022	0	0	0	0	17,373,250	18.3	20.0
2023	1,362,230	0	1,362,230	317,877	17,691,126	18.6	20.3
2024	0	0	0	0	17,691,126	18.6	20.3
2025 <sup>a</sup>	363,808	0	363,808	74,267	17,765,394	18.7	20.4

<sup>a</sup>Data for 2025 include 0.02 trillion Btu per day of capacity expirations in years beyond 2025.

Notes: Data are for 64 interstate pipeline companies. Data for 1998 are for the last 6 months.

Sources: Energy Information Administration, Office of Oil and Gas based on: **Expiring Capacity**: derived from Federal Energy Regulatory Commission (FERC) Index of Customers data for July 1, 1998, FERC Bulletin Board (August 14, 1998), and **Turnback Capacity**: derived from various sources, see "Assessment of Potential Turnback," pp. 206-207.

**Figure D3. Long-term Firm Capacity Under Expired and New Contracts, by Region and Shipper Type, July 1, 1997 - July 1, 1998**

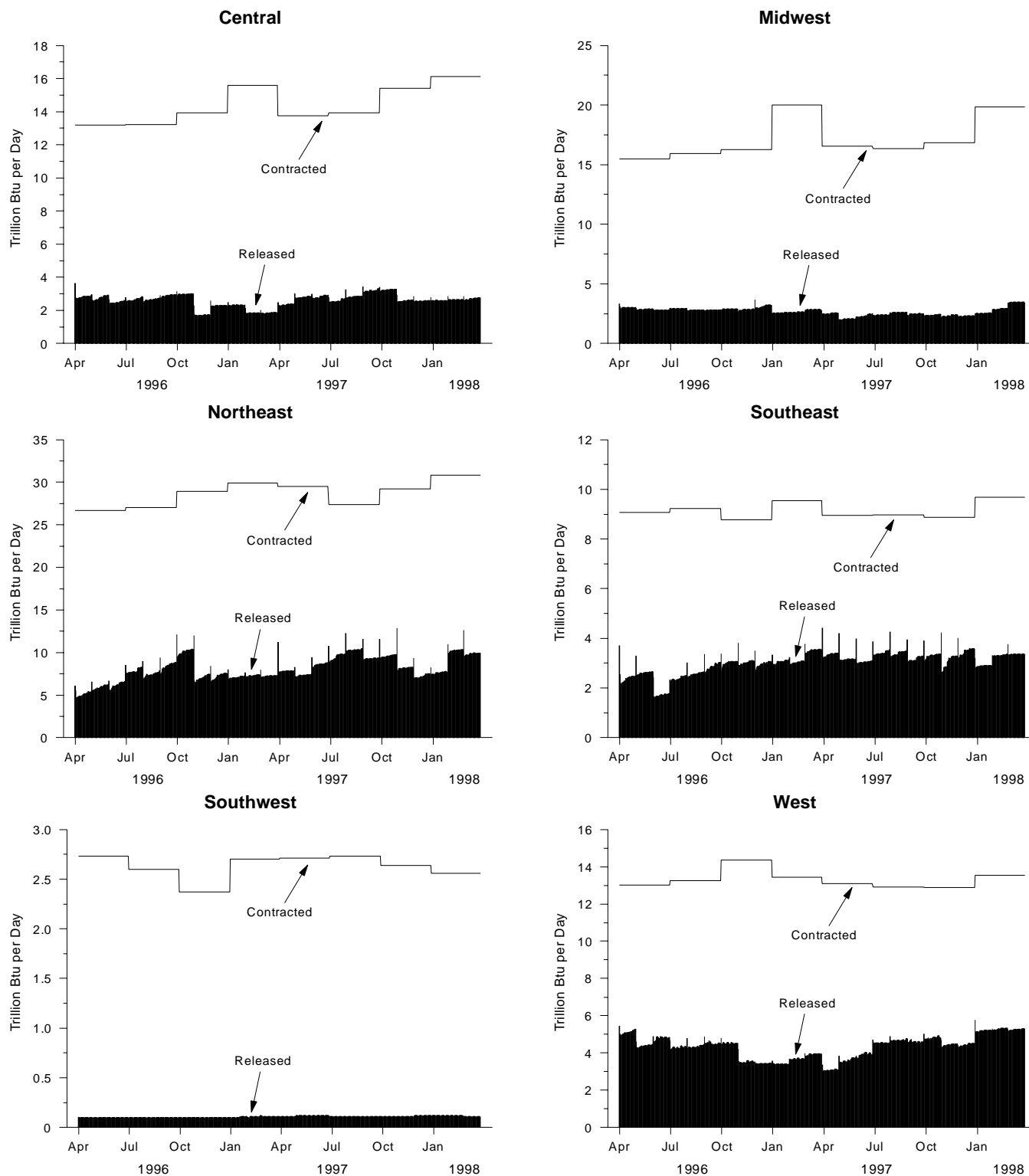


EU = Electric utility, IND = Industrial, LDC = Local distribution company, MARK = Marketer, OTHR = Other, PIPE = Pipeline company.

Notes: New capacity includes positive revisions and expired capacity includes negative revisions. Data are for 64 interstate pipeline companies.

Source: Energy Information Administration, Office of Oil and Gas, derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers quarterly filings for July 1, 1997 through July 1, 1998, FERC Bulletin Board (August 14, 1998).

**Figure D4. Daily Contracted and Released Firm Transportation Capacity, April 1996-March 1998, by Region**



Note: Released capacity is that held by replacement shippers. The scales on each graph are different. Data are for 27 interstate pipeline companies.

Source: Energy Information Administration, Office of Oil and Gas. **Contracted Capacity:** derived from Federal Energy Regulatory Commission (FERC) data from Index of Customers filings for April 1, 1996 through January 1, 1998, FERC Bulletin Board (August 14, 1998). **Released Capacity:** derived from: April 1996-May 1997—FERC Electronic Data Interchange, May 1997-March 1998—FERC downloaded Internet data.